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Hooper, E T
1934 – 1938

1. San Francisco Bay region; various California counties 1934 – 1936

2. Nevada July – Aug. 1936

3. San Francisco Bay region counties 1936 – 1938

Berkeley and vicinity;
Marin, Inyo, Mono, Calaveras,
San Joaquin, Stanislaus &
Mariposa Cos., Calif.
1934 – 1936

Hooper, E. T.
1934 – 1936

San Francisco Bay region;
various California counties

Catalog of specimens
#1 – 545

Hooper, 1934

Deaf School Grounds, Berkeley, Alameda Co., Calif.

Feb. 11,

♂1	Myotis cinerea	123-60-13-13-t7

Head Strawberry Canyon, Berkeley, Alameda Co.

Feb. 18,

♂2	Peromyscus t. gilberti	199-197-23-22	wt. 33.1g.
♂3	" " "	196-100-24-19	" 23.4g.
♀4	" " "	184-94-24-22	" 24.4g.
♂5	" m. gambelii	149-66-20-13	21.5g.

Tidelands west of El Cerrito knoll, Albany, Alameda Co.

Feb. 23,

♀6	Microtus c. californicus	153-40-19-16	wt. 50.2g.
♀7	" " "	153-41-20-15	" 38.4g.
♂8	" " "	167-49-21-14	" 56.4g.
♂9	" " "	161-40-21-15	" 43.6g.

3/4 mi. N., 1 3/4 mi. W. Inverness, Marin Co.

Feb. 28,

♂10	Sorex	119-47-12	wt. 5.9g.
♂11	"	114-50-13	" 6.8g.
♂12	"	109-44-14-8	" 6.8g.
♀13	"	112-46-13-9	" 6.3g.
♂14	Microtus c. eximius	120-45-14-9	" 10.5g.
♀15	" " "	125-32-19-10	" 23.3g.

Hooper, 1934

3/4 mi. N., 1 3/4 mi. W. Inverness, Marin Co., Calif.

Feb. 28,

♂ 16 Skull Only	Microtus c. eximius	125-34-19-18	wt. 20.0g.
♀ 17	Sorex	108-40-12-8	" 6.4g.

1/4 mi. N. Botanical Gardens, Strawberry Canyon, Berkeley, Alameda Co.

Mar. 3,

♀ 18	Reithrodontomys m. longicauda	135-65-17-14	wt. 8.7g.

Mar. 8,

♀ 19	Reithrodontomys m. longicauda	135-71-16-12	wt. 10.2g.

Smith Canyon, E. of Deaf School, Berkeley, Alameda Co.

Mar. 11, 1934.

♂ 20	Peromyscus	157-68-20-7	20.5g.
♂ 21	" (juv.)	165-84-21-20	21.9g.
♂ 22	Reithrodontomys m. longicauda	138-72-17-12	8.2g.
♂ 23	" " "	134-69-16-12	9.9g.

1/4 mi. N. Botanical Gardens, Strawberry Canyon, Berkeley, Alameda Co.

Mar. 18,

♂ 24	Reithrodontomys m. longicauda	136-70-17-12	9.2g.
♂ 25 Skull Only	" " "	137-70-16-13	9.8g.
♂ 26	" " "	126-67-14 12	9.0g.
♂ 27	" " "	133-67-16-14	8.7g.
♀ 28 Skull Only	" " "	128-64-15-12	7.0g.
♂ 29	" " "	137-75-17-13	9.7g.

[C]ooper, 1934

1/4 mi. N. Botanical Gardens, Strawberry Canyon, Berkeley, Alameda Co., Calif.

Mar. 18,

♂30	*Reithrodontomys m. longicauda*	130-63-16-13	9.0g.
♂31	*Peromyscus m. gambelii*	140-56-17-16	19.1g.

Mar. 25,

♂32	*Peromyscus t. gilberti*	186-97-23-19	24.1g.
♂33	*Microtus c. californicus*	117-28-18-13	20.2g.
♂34	*Peromyscus c. ~~calif.~~ parasiticus*	209-108-23-22	33.4g.
♂35	*Perognathus c. californicus*	(149)-(50)-25-12	31.5g.

Hooper, 1934

Calif., Inyo Co., Bishop Cr., 4500 ft.
June 21,

36 Sceloporus?
37 " ?
38♀ _Reithrodontomys_ _m._ _megalotis_ 139-66-16-6

Inyo Co., Rock Cr., 1 mi. above Rock Cr. Lake, 10,200'
June 29,

39♀ _Citellus_ _beldingi_ 271-61-44-18

Inyo Co., Long Lake, Rock Cr., 10,650'
July 4,

40♂ _Citellus_ _beldingi_ 278-63-43-18

Mono Co., Convict Cr., 1/2 mi. above mouth.
July 6,

41 Lizard

Mono Co., Hot Cr., 2 mi. N. of Geysers, Fish + Game Rearing Ponds
July 13,

42 _Thamnophis_

Mono Co., Gull Lake, Lower Camp Ground
Aug. 6,

43♀ _Sorex_ _p._ _navigator_ 155-75-21-9
44♀ _Peromyscus_ _m._ _sonoriensis_ 160-70-18-18
45♂ " " " 156-65-18-18
Skull only 46♂ " " "

Hooper, 1934

Calif., Mono Co., Virginia Cr. at Lake Trumbull, 9680'

Aug. 19,

46♂	Peromyscus m. sonoriensis	160-75-19-17
47♂	" " "	160-74-19-16
48♀	" " "	163-65-20-16

Calif., Mono Co., Robinson Cr., 1½ mi. below Twin Lakes

Aug. 26,

49♂	Sorex	96-42-10-8
50♂	Microtus m. sierrae	190-63-21-16
51♂	" " "	172-56-21-16
52♂	Eutamias a. monoensis	189-80-28-17
53♂	Peromyscus m. sonoriensis	167-70-20-19
54♂	" " "	153-65-19-19
55♀	Eutamias a. monoensis	200-85-28-18

Calif., Mono Co., East Walker R., 6300'; Jct. of River with Murphy Cr.

Aug. 28,

56 Crotalus

Mono Co., Mouth of Rock Canyon (U.S.G.S.), 5 mi. S.E. Coleville, 5300'

Aug. 31,

57 Crotaphytus

Nevada, Douglas Co., N. end Topaz

Sept. 1, Lake (=s Alkali Lake, U.S.G.S sheet)

58 Sceloporus ?

59♂ Neotoma l. lepida 307-141-30-29

Nevada, Douglas Co., N. end Topaz Lake
Sept. 2,

60♂ Dipodomys 222-141-41-12

Calif., Alpine Co., Markleeville
Sept. 10,

61 Thamnophis

Alpine Co., W. Carson R. at
Faith Valley, 7470'
Sept. 13, 1934

62♀ Callospermophilus c. chrysodeirus 255-80-38-18
63♂ Citellus d. albolimbatus 324-115-46-23
Skin Only
64♂ Eutamias q. frater 196-78-30-20
Skull Only
65♂ " " " 216-84-34-16

Calif. Inyo Co., Rock Cr., ±8500'
June 30,

66 Sceloporus juv.

Nev., Douglas Co., Topaz Lake
Sept. 4, 1934

67 Lizard juv.

Alameda Co., Berkeley, M.V.Z.
Oct. 19,

68♂ Canis l. lestes - Feb. 5, 1934 -
69♂ " " " - Mar 27, " -

Mammals sent by O. R. Shaw of Alturas; 68 from Duncan Horse Camp, Modoc Co.
69 " 1/4 mi. N. " " ", 4500', " "

Hoofer, 1934

Berkeley., Alameda Co., Calif.

Oct. 30,

skull only
70 ♂ Perognathus spinatus 183-109-205

This specimen collected by S. B. Benson in Andreas Canon, 9,000 ft., Riverside Co., Calif. There is a duplication in his collecting numbers, 1220, one being skin & skull, one skull only. Therefore to prevent future confusion I am giving this another number. Benson, himself, furnished the specifications.

Dec. 21,

Alcohol
71? Dipodomys mohavensis

This rat was collected by S. B. Benson on Aug. 1, 1929, at 4700 ft., Freeman Canyon, Kern Co., Calif.. This data was on the original tag; but no sex or measurements were given.
A ~~search~~ search through Benson's field notebook and the catalogue (of numbers included in accession 3331, which covered this trip in the Los Angeles Co., Kern Co. region) failed to reveal any notations of an alcoholic D. mohavensis. Therefore, to guard against future mixup, I am giving the specimen my number.

Hooper, 1935

Berkeley, Alameda Co., Calif.; [Jan. 3,]

The following six birds (Col. Nos. 72-77) were collected by Ralph Ellis at the locality, "5 mi. W. Princeton, Colusa Co., Calif.," on Dec. 30, 1934, and were presented to the Museum by the above collector. Due to the absence of W. C. Russell, I was instructed by Dr. E. R. Hall to prepare the specimens for the skeletons only and am therefore affixing my own collecting numbers to them.

Skeletons Only:

72♂ Bittern
73♂ Marsh Hawk
74♂ Coot
75♀ "
76♂ "
77♀ "

Feb. 18,

This shrew was collected at Moss Beach, Monterey Co., Calif., on April 23, 1932 by C. F. Smith and was presented to the Museum by him on the above date (Feb. 18, 1935).

alcoholic
78? Sorex t. montereyensis
Cat. No.: 65598

Hooper, 1935

Berkeley, Alameda Co., Calif.

The following specimens were collected at or near Big Pines, Monterey, Co., Calif. in the spring of 1933, more definitely, probably in March, April, or May. They were presented to the Museum by C. F. Smith as part of accession 4550. Because the original tags were lost and no more specific data than that given above was available, I am affixing my collecting numbers. The specimens were collected by either C. F. Smith, R. E. Smith, or J. F. Ashley and may ~~belong to~~ (now as skulls only) belong to certain skins included in the accession. However, this we do not definitely know.

Skull Only 79. Sciurus

Skull Only 80 "

Skull Only 81 "

Contra Costa Co., north Berkeley, ½ mi. north of Arlington.

Mar. 29,

82 Charina bottae

The above specimen was found in a clump of clover on a west facing hillside at aproximately 10:30 a.m. It was very sluggish at the time. The greenish color

1/2 mi. N. Arlington, Contra Costa Co., Calif.

Mar. 29,

is due to green paint derived from a paint can which served as a container for retaining the reptile.

2 mi. E. Bishop, Inyo Co., Calif.

May 21,

Last night I set out 30 mouse traps, about 10 paces apart at the above locality, which is due east of Bishop on East Line St., the main road to the Owens River. Squaw tea (Ephedra) sage, and other xerophytic plants indicate the zonation to be Lower Sonoran in this immediate area. Many kangaroo rat burrows were visible in the dry, sandy soil. Most were within a foot from the base of a sage bush, however a few were out in the open, 5 or 6 ft. from any vegetation. Some burrows were open but the majority were at least partially closed by sand, only tracks and tail marks indicating that the holes were inhabited; the diameters of the burrow mouths varied, though seemed to fall into two general size groups, one aproximately 1½ in. in diameter and the other aproximate

Hooper, 1935

2 mi. E. Bishop, Inyo Co., Calif.

May 21,

ly 2 or 2½ in. in diameter. About one half of the traps were set in this habitat and the other fifteen placed in the adjoining Bishop Cr. bottom-lands. Here a few grassy areas could be found on the slightly higher ground bordered by the stream channels proper, which were, ~~for the most part,~~ overgrown with cat-tails (*Typha*), willow (*Salix*), + wild rose (*Rosa*). Very little water at any season flows down this part of the creek; all but this slight seepage is diverted, ~~at~~ at a point aproximately 1 mile west, into the Bishop canal, which, in turn empties into the Owens River near Big Pine. Some *Microtus* sign could be found in the grassy areas.

The traps this morning yielded the following mammals (+ 1 Reithrodontomys, which was discarded):

♂83	*Dipodomys*	*m.* [illegible]	314 - 191 - 46 testes large
♀84	"		278 - 172 - 43
♂85	"	"	287 - 170 - 43 testes large
♀86	"	"	282 - 170 - 44
♂87	"	*m. merriami*	225 - 131 - 37 " "
♂88	"	" "	215 - 126 - 38 " "
♂89	*Reithrodontomys*	*m. megalotis*	135 - 66 - 18 " "

2 mi. E. Bishop, Inyo Co., Calif.

May 21, 1935

Skull Only

♂90	Reithrodontomys m. megalotis	143-71-18	testes enlarged
♂91	" " "	133-70-18	" "
♂92	" " "	130-66-16	" "
♀93	Microtus c. vallicola	170-40-23	

1 mi. W. Laws, Inyo Co., Calif.

May 23,

Laws is a small town 5 miles NE. Bishop; it lies at the end of the railroad line (Mohave → Laws) and is about 3/4 mi east of the Owens River, actually lying in the old river bed. My collecting locality is, thus, on the west bank of the river bed and 1/4 mi. west of the present river channel. The bottom lands are covered with grass and serve as forage ground for cattle. Mammal signs, other than that of Lagomorphs, is scarce. However, on the adjoining, sandy bank near sage bushes, burrows, tracks, and fecal material is fairly abundant. It was in this latter habitat that I set out fifteen traps. Black-tailed jackrabbits (Lepus c. deserticola) and cottontails

oper, 1935

1 mi. W. Laws, Inyo Co., Calif.

May 23,

(*Sylvilagus a. arizonae*?) were seen; three of the former and two of the latter were observed in an area of an acre.

I found only four mammals in my traps this morning. ~~are~~ Only four, or five, of the remaining traps were unsprung.

♀94	*Dipodomys* m. [illegible]	300-184-44
♂95	"	266-154-42
♂96	*Reithrodontomys m. megalotis*	143-72-18
♂97	" " "	135-66-17

1½ mi. E. State Line, Douglas Co., Nevada

May 24,

On the way back from Bishop to Berkeley we followed the main north-south highway north through Bridgeport, Coleville and Gardnerville, then turned west up the Oak Cr. road (10 mi. S. Carson City, Nevada), which is continuous westward with the Placerville or Lincoln Highway. The following chicory was found dead on the highway about 1½ mi. E. of the Calif.-Nevada state line and resort. The animal's back had been broken. It, now as a study skin, has been given the following number:

998 Sciurus d. albolimbatus 333-138-49

Hooper, 1935

3 mi. W. Inverness, 200'; Marin Co., Calif.

June 14, acc. 4705

♀99	Sorex	119-54-14
♀100	"	111-43-13
♀101	"	119-54-14
♂102	Neotoma f. fuscipes	333-156-34
♂103	Microtus c. eximius	164-47-22
♂104	" " "	145-39-21
♂105	Peromyscus m.	199-98-21-18
♂106	" "	165-75-22-18
♂107	" "	165-77-21-18

The above specimens (+ three more Peromyscus, which were discarded) were taken from thirty-three traps this morning. Of the thirty-three, thirty were gov't. mouse traps, one a #0 steel and two rat traps. The rat traps were set near Neotoma huts, however were empty, though sprung; the above wood rat was caught in a gov't. mouse trap. The steel trap was placed at the opening of a large burrow at the immediate edge of a stream, however yielded nothing.

The above locality is on the Pt. Reyes highway three miles west of Inverness on the west side of Inverness Ridge. The vegetation changes abruptly as one

3 mi. W. Inverness, 200 ft., Marin Co. Calif.

June 14,

passes westward. The Bishop Pine (P. muricata), mountain lilac (Ceanothus sp.), madrone (Arbutus menzesii), alder (Alnus rubra), buckeye (Aesculus californicus) association gives way to a dry hard chapparal association in which the following "major" plants were noted: Baccaris (sp?), ~~B~~ bracken, ~~oak~~ (Q. agrifolia), wild raspberry (Ribes sp?), willow (Salix sp.?), and hazlenut [the latter two especially along the creek bottom]. Along the creek a dense growth of sword grass, thistle and grass affords a splendid habitat for meadow mice (Microtus), shrews (Sorex), and jumping mice (Zapus). Other areas in the darker chapparal serve as suitable areas for wood rats (Neotoma).

The primary purpose of this trip over here to Marin Co. was to secure specimens of and learn about ~~the habitat~~ of mountain beaver (Aplodontia), jumping ~~mouse~~ mice (Zapus) and wood rats (Neotoma). I found no definite signs of Aplodontia here, 3 mi W. Inverness, where Taylor, Camp, Grinnell and others trapped in 1913. The postmaster here told me that mountain beaver are still found in

3 mi. W. Inverness, 200 ft., Marin Co., Calif.

June 14,

the canyons running down to the ocean. He also said that he had seen them high up on Inverness ridge near the summit south, east of Inverness (about 3 mi.). Coyotes, he said, were giving considerable trouble to stock owners in this region.

On the property of the Inverness Gun Club (where I trapped) I saw a group of aproximatly 15 grouse which were flushed from a large alder tree. A large, fat doe and two fawns were also seen down in the bracken-raspberry-sword grass thickets. Brush rabbits were abundant.

In the Bishop pine association the following birds were seen: Calif. quail (in pairs), russet-backed thrush (numerous but seen singly), Santa Cruz song sparrow, white-crowned sparrow, western robin, Raven, Red-shafted flicker, Calif. jay, junco, golden pileolated warbler, spotted towhee, wren-tit, rufous humming-bird. The robin, white-crowned sparrows, flicker, junco, & warbler are all birds of the forest, rather than chapparal & dense

Hooper, 1935 3 mi. W. Inverness, 200 ft., Marin Co., Calif.

June 14,

brush.

Two great (Calif.?) blue herons and several brewer blackbirds (not in a flock though) were seen flying overhead.

Museum Vertebrate Zoology, Berkeley, Alameda Co.

Acc. 4714 June 26,

The following four specimens were donated to the Museum by Tom Cunningham of St. Marys High School, Berkeley. They were collected by him at the following places and on the two dates given:

Napa, Napa Co., Calif.

June 13, 1935

alcoholic ♂ 107 Myotis e. evotis

Moscow, Sonoma Co., Calif.

alcoholic ♂108 Myotis c. caurinus --- June 18, 1935

♂109 " y. saturatus --- June 13, 1935

♀110 " " " --- June 16, 1935

Berkeley, Alameda Co., Calif.

July 2,

Skel. Only
♂ 111 Oriole (~~Icterus~~ bullockii)
The above specimen was killed by an auto 6 mi. W. of Tehachapi, Kern Co., Calif. and was picked up on June 29, 1935 ~~by~~ ~~&~~ and donated to the Museum by Mr. Ansel Hall. Accession number 4717.

Acc. 4750. — numbers 112-144
7 mi. NE. Vernalis, ~~Stanislaus~~ San Joaquin Co., Calif.

Aug. 8,

Skull Only
112 Thomomys — Pick up in wheat field.

10 mi. W. Gustine, Stanislaus Co., Calif.

Aug. 9,

♂ 113	Perognathus	204-113-26
♂ 114	Peromyscus	185-95-22-24
♂ 115	" "	186-93-21-22
♀ 116	" "	183-96-21-23
♂ 117	Sylvilagus	355-53-84-73

Aug. 10,

♂ 118	Dipodomys	316-196-41-15
♀ 119	"	289-181-43-15
♂ 120	Perognathus	192-116-26-12
♀ 121	"	207-115-26-12
♀ 122	Peromyscus	180-96-21-23
♀ 123	" "	172-90-23-22

7 mi. ~~W.~~ E. Mariposa, Mariposa Co., Calif.

August 11,

♀ 124	Peromyscus m.	192-101-22-20
♂ 125	" m.	197-104-21-20
♂ 126	" m.	191-90-21-19
127	Bufo	
♂ 128	Myotis	79-37-6-12
♀ 129	"	79-35-7-13
♂ 130	"	80-36-6-13

Aug. 12

♀ 131	Myotis	77-34-8-13
♀ 132	"	79-33-7-13
♀ 133	"	76-33-7-14

August 13.

♀ 134	Myotis	74-37-7-12	
♂ 135	Neotoma f. streatori	273-123-34-27	(juv.)
♂ 136	Citellus b. beecheyi	332-141-50-25	(juv.)
♀ 137	Peromyscus	212-107-21-24	
♀ 138	"	212-103-23-23	
♂ 139	"	— -98-23-26	

4 mi. E. Bishop, Owens River, Inyo Co., Calif.

Aug. 18,

♂ 140	Dipodomys	312-184-47-16
♀ 141	"	303-184-44-14
♀ 142	"	296-182-45-15
♂ 143	Peromyscus m.	151-65-21-17
♂ 144	" "	152-65-21-17

Hooper, 1935
1936 San Joaquin R., 3 mi. NE. Vernalis, San Joaquin Co., Calif.

October 18,

+ Skeleton
♂ 145 Neotoma fuscipes 434 - 224 - 44 - 35 (ad. hooded)
♀ 146 Mus musculus 156 - 78 - 22
147 Hyla (found on shore of a slough)
♀ 148 Thomomys b. 217 - 60 - 28

October 19,

♂ 149 Neotoma fuscipes 446 - 207 - 44 - 37 (ant. hooded)
♀ 150 " 435 - 217 - 44 - 34 (ant. hooded)

2.5 ft., W side E. C. Cerrito Knoll, Albany, Alameda Co., Calif.

Jan. 22, 1936

♂ 151 Song Sparrow wt. 18.7 g.
♂ 152 California purple finch wt. 17.8 g.
♂ 153 Pipit wt. 22.7 g.
♂ 154 Audubon warbler wt. 13.7 g.
♂ 155 Anna hummingbird wt. 4.2 g.
♂ 156 Junco wt. 17.7 g.

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1 mi. W Summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif. Acc. 4875

Feb. 16, 1936

♀ 157 Microtus c. californicus ? - 45 - 20
♀ 158 " " " ? - 41 - 19
♂ 159 Peromyscus t. gilberti 188 - 88 - 21
♂ 160 Reithrodontomys longicauda 133 - 70 - 16
♂ 161 " " " 132 - 68 - 16
♀ 162 " " " 124 - 64 - 16

Hooper, 1936 — 1 mi. W summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Feb. 16,

♂163	Peromyscus m. gambelli	157-74-19
♂164	" t. gilberti	193-110-23
♂165	" " "	192-97-22
?166	" m. gambelii	166-77-19

Acc. 4900 (part) — 1 mi. S. Monte Rio, Sonoma Co., Calif.

Mar. 2,

♀167 Varied thrush wt. 76.5 g.

The above bird was collected at the above locality by Mr. D. H. Johnson. Date of Collection: Mar. 1, 1936

Isabel Cr., 1800 ft., 2½ mi. NW summit Mt. Hamilton, Santa Clara Co., Calif.

Mar. 3,

♂168	Neotoma fuscipes	439-212-42-35	wt. 380.4 g.
♀169	" "	418-196-37-33	wt. 277. g.
♀170	" "	352-170-33-31	wt. 172.8 g.

Acc. 4900 (part) — The following mice were collected on Mar. 1, 1936, at 2.3 mi. S Monte Rio, Sonoma Co., Calif., by D. H. Johnson, S. B. & E. D. Benson.

♀171	Phenacomys longicaudus	185-80-21-13	wt. 25.3 g.
♀172	" "	135-54-18-12	wt. 14.2 g.
♀173	" "	96-30-15	wt. 7.4 g.
♀174	" "	99-32-14	wt. 7.0 g.

The specimens died in captivity at Berkeley on Mar. 3, 1936.

Hooper, 1936

2.3 mi. S. Monte Rio, Sonoma Co., Calif.

Mar. 4,

♀175 Phenacomys longicaudus 172-74-21-13 wt. 21.9
The above speciemen died in captivity at Berkeley on Mar. 4, 1936. It was collected on Mar. 1, 1936 by D. H. Johnson, S.B. + E.D. Benson.

Acc. 4917 (part) The following six mammals were collected by L. V. Compton on Mar. 15, 1936, at Chaco Canyon National Monument, San Juan Co., Utah.

Berkeley, Alameda Co., California

Mar. 18,

♂176	Eutamias	205-90-30-18
♂177	Peromyscus t.	177-85-24-25
♂178	" m.	139-53-19-15
♀179	" "	167-67-20-19
♂180	Dipodomys o.	198-103-38-9
♂181	Reithrodontomys	129-63-11-15

Acc. 4921

1 mi. W summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Mar. 22,

♀182	Dipodomys	292-175-41-15 wt. 64.g.
♂183	"	286-168-42-14 wt. 71.6g.
♂184	"	299-182-41-16 wt. 72.2g.
♀185	"	3 embryos 282-172-41-15 wt. 61.7g
♂186	"	293-171-43-14 wt. 67.2g.
♀187	"	269-162-40-15 wt. 58.5g.
♀188	"	290-176-39-14.5 wt. 58.2g.
♀189	"	284-170-42-15 wt. 80.5g.

Hooper, 1936 1 mi. W. summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Acc. 4921 May 22,

♀190	Perognathus c.	192-104-24-12	wt. 19.0 g.
♂191	Microtus c.	154-36-20-16	wt. 32.2 g.
♂192	Peromyscus t.	197-94-23-23	wt. 26.0 g.
193	Pituophis catenifer (found on highway).		

Berkeley, Alameda Co., Calif.
April 6,

Acc. 4936 The following mammals were received today from Mr. L. V. Compton. They were collected by Compton on April 2, 1936, at Dinnehotso, 5500 ft., Apache Co., Arizona, and are part of acc. 4936.

♂194	Dipodomys	250-137-37-13
♀195	"	268-148-43-16
♂196	"	245-136-39-12
♂197	Peromyscus m.	150-64-18-16
♀198	" "	148-58-19-17
♂199	" "	136-62-18-18
♂200	Reithrodontomys	152-76-18-16

See notebook of H. G. Palmer for rest of acc.

Acc. 4938 Inverness, Marin Co., Calif.
April 12,

♂201 Sorex 118-51-14

The above mammal was caught in a "Benson" live trap which was set (baited with oatmeal & wheat) on a grassy slope and under a Ceanothus bush. It died about three hours

Inverness, Marin Co., Calif.

April. 12,

after the trap was collected. However, before this, it ate ravenously a piece of cooked meat.

The following birds were obtained from a "jay shoot" in Calaveras Co.. See my field accounts under April 24, 25, 26, 27. All birds were supposedly collected on April 26, 1936. Locality: vicinity of San Andreas, Calaveras Co., Calif.

Acc. 4945 (part)

All skeletons Only (unless other-wise noted)

♀ 202	Aphelocoma californica (California jay)	9×3 mm.	wt.	75.0 g.
♂ 203	"	4 "	"	97.4 "
♀ 204	"	8×6 mm.	"	82.7 "
♀ 205	"	8×5 "	"	84.4 "
♀ 206	"	9×7 "	"	95.8 "
♂ 207	"	2.3 "	"	84.4 "
♀ 208	"	7×5 "	"	75.2 "
♂ 209 stomach only	"		"	93.2 "
♂ 210	"	7.3 "	"	93.9 "
♀ 211	"	6.5×4.9 mm.	"	77.1 "
♂ 212	"	7.5 "	"	95.4 "
♀ 213	"	12×9 mm.	"	78.8 "
? 214 stomach only	"		"	77.6 "
♀ 215 stomach only	"	9×5.5 "	"	79.3 "
♂ 216	"	8.5 mm.	"	91.8 "
♀ 217	"	17×? "	"	93.0 "
? 218 ~~stomach~~ only	"		"	90.5 "
♂ 219	"	3 "	"	96.7 "

Hooper, 1936

vicinity of San Andreas, Calaveras Co., Calif.

April 26, 1936

Aphelocoma californica (California jay)

	♀ 220		11×5 mm.	wt. 80.0 g.
	♂ 221 stomach only	"	3 mm.	" 71.4 "
Acc. 4945	? 222 stomach only	"		" 91.2 "
	♂ 223 stomach only	"	5.5	" 88.2 "
	? 224 stomach only	"		" 83.7 "
	♀ 225	"	9×6 mm.	" 81.0 "
All	♂ 226	"	7 "	" 86.6 "
skeletons	♂ 227	"	10 "	" 92.6 "
only	♂ 228	"	9 "	" 96.8 "
(unless otherwise noted)	♂ 229	"	2 "	" 90.9 "
	♀ 230	"	7×8 mm.	" 75.4 "
	? 231 stomach only	"		" 89.7 "
	? 232 stomach only	"		" 88.8 "
	♀ 233	"	7×8.5 mm.	" 83.4 "
	♀ 234	"	7×7 mm.	" 77.9 "
	♂ 235	"	6 "	" 100.8 "
	? 236 stomach only	"		" 77.1 "
	♂ 237	"	8 "	" 83.4 "
	♀ 238	"	7×4 "	" 81.0 "
	♂ 239	"	9 "	" 88.4 "
	♂ 240	"	7 "	" 96.0 "
	♂ 241	"	5 "	" 97.3 "
	♂ 242	"	4 "	" 75.0 "
	♂ 243	"	6. "	" 93.2 "
	♂ 244	"	7 "	" 97.7 "
	♀ 245	"	15×5 mm.	" 74.0 "
	♀ 246	"	5×4 mm.	" 90.9 "

Hooper, 1936 vicinity of San Andreas, Calaveras Co., Calif.

April 26,

		Aphelocoma californica			
	♀ 247	California jay	8x6 mm	wt.	83.7 g
	♀ 248	"	7x5 mm.	"	82.0 g
	♀ 249	"	8 x 6 "	"	80.1 "
C. 4945	♂ 250	"	7 "	"	97.7 "
	♀ 251	"	7x5 mm.	"	89.1 "
	stomach only ? 252	"		"	86.5 "
All	Stomach Only ♀ 253	"		"	79.6 " ovary 8.5 mm
skeletons	♂ 254	"	12 "	"	97.7 "
only	♀ 255	"	8 x 6 "	"	91.8 "
(unless otherwise noted)	♂ 256	"	2.5 "	"	78.7 "
	stomach only ♂ 257	"	3.0	"	80.8 "
	♂ 258	"	5 "	"	90.0 "
	♂ 259	"	3. 0 "	"	93.6 "
	stomach only ? 260	"		"	82.8 "
	♂ 261	"	6 "	"	84.6 "
	♂ 262	"	9 mm.	"	93.2 "
	♂ 263	"	9 "	"	97.4 "
	♂ 264	"	9.5 "	"	92.2 "
	♂ 265	"	7 "	"	75.0 "
	♂ 266	"	7 "	"	97.5 "
	♀ 267	"	9x6 mm.	"	81.5 "
	♂ 268	"	5	"	96.4 "
	♂ 269	"	4.5 "	"	90.8 "
	♂ 270	"	6 "	"	86.7 "
	♂ 271	"	9 "	"	92.0 "
	♂ 272	"	1.5 "	"	84.9 "
	♂ 273	"	2 "	"	87.1 "

Hooper, 1936

vicinity of San Andreas, Calaveras Co., Calif.

April 26,

All skeletons only (unless otherwise noted)

destroyed ~~♀ 274~~	*Aphelocoma californica* California jay	8×5 mm.	wt. 82.8 g.
♂ 275	"	7 "	" 92.5 "
stomach only? ♂ 276	"		" 87.7 "
♀ 277	"	9.3×5.3 "	" 80.0 "
♂ 278	"	3 "	" 93.1 "
♀ 279	"	10×5 "	" 79.3 "
♂ 280	"	6 "	" 83.2 "
♀ 281	"	9×7 "	" 84.9 "
stomach only ♂ 282	"	8 "	" 86.6 "
♂ 283	"	3 "	" 87.2 "
♂ 284	"	9 "	" 94.0 "
♂ 285	"	2.5 "	" 92.1 "
♀ 286	"	13×6 mm.	" 82.0 "
stomach only ? 287	"		" 76.9 "
♂ 288	"	4 "	" 92.8 "
♀ 289	"	10×4 "	" 80.9 "
stomach only ? 290	"		" 83.9 "
♂ 291	"	2 "	" 88.0 "
♀ 292	"	5×4 "	" 85.7 "
♀ 293	"	10×7 "	" 78.9 "
♂ 294	"	3 "	" 86.9 "
♂ 295	"	10 "	" 92.1 "
♀ 296	"	9×6 mm.	" 87.6 "
♀ 297	"	7	" 85.9 "
♂ 298	"	4 "	" 88.2 "
♂ 299	"	2 "	" 78.9 "
♂ 300	"	7 "	" 92.0 "
♂ 301	"	4 "	" 100.0 "

Hooper, 1936 — vicinity of San Andreas, Calaveras Co., Calif.

April 26.

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♀ 302	*Aphelocoma californica* California jay	9×4 mm.	wt.	70.0 g.
♂ 303	"	7 "	"	98.2 "
♂ 304	"	4 "	"	82.7 "
♀ 305	"	8×4 mm.	"	82.2 "
? 306	stomach only "		"	86.5 "
♂ 307	"	3 mm.	"	93.6 "
♀ 308	"	9×6 "	"	93.6 "
? 309	stomach only "		"	83.6 "
♀ 310	"	8×5 "	"	74.9 "
♂ 311	"	6 "	"	95.6 "
? 312	stomach only "		"	90.8 "
♀ 313	stomach only "	10×5 "	"	91.2 "
♂ 314	"	4 "	"	91.1 "
♀ 315	"	?	"	80.7 "
♀ 316	"	8×5 mm.	"	77.9 "
♂ 317	"	8 "	"	93.8 "
♀ 318	"	10×6 mm.	"	91.3 "
♀ 319	"	9×5 "	"	83.1 "
♀ 320	"	7×5 "	"	92.8 "
♀ 321	"	6×4 "	"	72.5 "
♂ 322	"	8 "	"	97.0 "
♀ 323	"	8×6 "	"	84.5 "
♂ 324	"	3 "	"	85.2 "
♀ 325	"	8×5 "	"	72.7 "
♀ 326	"	9×5 "	"	77.7 "
♂ 327	stomach only ? "		"	91.1 "
♂ 328	"	3 "	"	91.4 "

oper, 1936

vicinity of San Andreas, Calaveras Co., Calif

April 26,

♂ 329	Aphelocoma californica California jay	10. mm. wt.	94.7 g.
♂ 330	"	5 "	" 91.4 "
♀ 331	"	6×5 "	" 83.5 "
♀ 332	"	7×5 mm.	" 89.2 "
♂ 333 stomach only	"	2.5 "	" 88.6 "
♀ 334	"	7×4 "	" 80.0 "
♂ 335 stomach only	"	2 "	" 81.4 "
♀ 336	"	10×5 "	" 81.0 "
♀ 337	"	10×6 "	" 85.0 "
♂ 338	"	3 "	" 93.0 "
? 339 stomach only	"		" 100.7 "
♂ 340 stomach only	"	7 "	" 90.5 "
♂ 341	"	2 "	" 93.4 "
♀ 342	"	10×5 mm.	" 88.8 "
♂ 343	"	3 "	" 92.5 "
♀ 344	"	5×3 "	" 83.3 "
♂ 345	"	2 "	" 90.0 "
♂ 346	"	8 "	" 86.6 "
♀ 347	"	6×5 "	" 79.5 "
♂ 348	"	4 "	" 88.3 "
♀ 349	"	9×5 "	" 79.3 "
♀ 350	"	8×5 "	" 81.9 "
♀ 351	"	8×5 mm.	" 82.3 "
♀ 352	"	7×5 mm.	" 83.1 "
♂ 353	"	10 "	" 100.8 "
♂ 354	"	5 "	" 84.7 "
♂ 355	"	9 "	" 97.7 "

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nless otherwise noted)

Hooper, 1936

vicinity of San Andreas, Calaveras Co., Calif.

April 26.

Aphelocoma californica

	♂356	California jay	5 mm.	wt. 91.7 g.
	♂357 stomach only	"	5 "	" 102.8 "
	♀358	"	10×5 mm.	" 82.8 "
located May 18, 1936 F.J.A.	♀359	"	8×5 "	" 84.0 "
	♀360	"	5×2 mm.	" 85.9 "
1	♂361	"	5	" 90.0 "
skeletons	♀362	"	6×3 "	" 74.5 "
only	♀363	"	13×6 "	" 92.4 "
(unless otherwise noted)	♀364	"	10×5 "	" 85.8 "
	♂365	"	6 "	" 88.0 "
	♂366	"	4 "	" 86.7 "
	♀367	"	8×4 "	" 83.7 "
	♀368	"	8×5 "	" 81.7 "
	♀369	"	9×5 mm.	" 82.4 "
	♂370	"	2 "	" 87.9 "
	♂371	"	3 "	" 94.7 "
	♀372	"	7×4 "	" 77.9 "
	♂373	"	5 "	" 90.0 "
	♂374	"	8 "	" 88.6 "
	♂ ~~♀ 375~~ destroyed	"	6 mm.	" 97.7 "
	? ♂376 stomach only	"	~~7.5~~	" 92.7 "
	♀377	"	5×3 "	" 75.1 "
	♀378	"	8×5 mm.	" 91.3 "
	♂379 stomach only?	"		" 81.5 "
	♀380	"	7×4 "	" 86.5 "
	♂381	"	3.5 "	" 91.5 "
	♂382	"	6. "	" 102.7 "

Hooper, 1936 vicinity of San Andreas, Calaveras Co., Calif.

April 26.

Margin note	No.	Species	Measurement	Weight
	♂383	*Aphelocoma californica* California jay	4 mm.	wt. 90.9 g.
	♀384	"	9×5 mm.	" 84.9 "
	♀385	"	9×4 "	" 67.2 "
	♂386	"	2 "	" 91.1 "
	♀387 (destroyed)	"	7×4 "	" 93.2 "
	♂388 (destroyed)	"	10 "	" 94.4 "
	♂389	"	3 "	" 84.6 "
	♂390	*Cyanocitta stelleri* Steller jay	4 mm.	" 115.0 "
...L	♀391	"	7×4 mm.	" 90.0 "
...eletons	♀392	"	9×5 "	" 88.2 "
Only	♀393	"	7×4 mm.	" 96.1 "
(unless	394 (unlocated June 9, 1936)	"		" ~~103.3~~ 106.5 "
...therwise	♀395	"	9×5 mm.	" 99.4 "
noted)	♀396	"	9×5 "	" 103.1 "
	♀397	"	7×5 mm.	" 106.0 "
	♀398	"	9×5 mm.	" 98.2 "
	♀399	"	8×5 mm.	" 103.3 "
Located May 12, 1936 R. T. M.	♂400	"	3.5 mm	" 107.9 "
	♀401	"	8×5 mm.	" 101.4 "
	♀402	"	6×4 mm.	" 97.1 "
	♀403	"	7×5 mm.	" 98.2 "
	? 404 (stomach only?)	"		" 104.4 "
	♀405	"	6×4 mm.	" 103.2 "
	♀406	"	7×4 mm.	" 98.4 "
	♂407	"	4 mm.	" 100.0 "
	♂408	"	4 mm.	" 103.1 "
	? 409 (stomach only)	"		" 90.0 "

...oper, 1936

vicinity of San Andreas, Calaveras Co., Calif.

April 26,

♀410	*Cyanocitta stelleri* Steller jay	7x4 mm	wt. 98.3 g.
♂411	"	3.5 mm.	" 103.9 "
♂412	"	4 mm.	" 109.4 "
♂413	"	3 mm.	" 109.1 "
♂414	"	3 mm.	" 100.0 "
♀415	"	7x4 mm.	" 99.1 "
♂416	"	4 mm.	" 104.7 "
♂417	"	3 mm.	" 127.1 "
♀418	"	7X4 mm.	" 98.3 "
♂419	"	4 mm.	" 114.8 "
♂420	"	3 "	" 99.5 "
♂421	"	3 mm.	" 108.1 "
♀422	"	7X4 mm.	" 109.3 "
♂423	"	5 mm.	" 102.0 "
♀424	"	8X5 mm.	" 95.4 "
♀425	"	8X5 "	" 94.3 "
♀426	"	7X4 mm.	" 96.5 "
♂427	"	5 mm.	" 110.9 "
♂428	"	4 mm.	" 106.6 "
♀429	"	7X5 mm.	" 97.1 "
♂430	"	3 mm.	" 104.5 "
♀431	"	9x6 mm.	" 102.5 "
♂432	"	3 mm.	103.3 "
♂433	"	4 mm.	" 97.7 "
♂434	"	3 mm.	" 102.0 "
stomachs only { ?435	"		" 107.1 "
?436	"		" 90.7 "

Left margin: ...l ...eletons only (unless otherwise noted)

per, 1936

vicinity of San Andreas, Calaveras Co., Calif.

April 26,

	♂437	*Cyanocitta stelleri* Steller jay	3 mm.	wt. 105.3 g.
	♀438	"	8X5 mm.	" 97.1 "
	♂439	"	4 mm.	" 102.4 "
	♂440	"	4 mm.	" 97.0 "
	♂441	"	4 mm.	" 102.3 "
	♀442	"	6X4 mm.	" 98.1 "
ll	♀443	"	8X6 mm.	" 97.5 "
eletons	♀444	"	7X4 mm.	" 92.3 "
nly.	♀445	"	6X4 "	" 95.5 "
(unless	♂446	"	3 mm.	" 104.0 "
otherwise noted)	♂447	"	3 mm.	" 102.5 "
	♀448	"	7X5 "	" 99.2 "
	♀449	"	8X5 "	" 103.8 "
	♂450	"	2 mm.	" 100.0 "
?	♀451	stomach only	10X4 "	" 95.7 "
	♂452	"	3 mm.	" 112.8 "
	♀453	"	6X5 mm.	" 104.8 "
	♂454	"	4 mm.	" 105.2 "
	♀455	"	7X5 "	" 96.1 "
	♀456	"	7X4 mm.	" 95.2 "
	♂457	"	3 mm.	" 94.9 "
	♀458	"	7X5 mm.	" 102.1 "
	♂459	"	4 mm.	" 101.3 "
	♂460	"	5 mm.	" 103.7 "
?	♀461	stomach only	7X4 "	" 99.8 "
	♂462	"	5 mm.	" 111.9 "
	♀463	"	5X4 "	" 92.9 "

…oper, 1936 — vicinity of San Andreas, Calaveras Co., Calif.

April 26,

Margin	No.	Species	Gonads	Weight
	♂ 464	*Cyanocitta stelleri* Steller jay	4 mm.	wt. 108.8 g.
[illegible] May 18, 1936 E.T.N.	♂ 465	"	3 mm.	" 101.7 "
	♂ 466	"	4 mm.	" 103.3 "
	♀ 467	"	5 X 4 mm.	" 86.7 "
	♂ 468	"	4 mm.	" 112.7 "
	♀ 469	"	6 X 4 mm.	" 93.1 "
…eletons	♀ 470	"	7 X 5 "	" 97.3 "
…nly	♀ 471	"	8 X 5 mm.	" 105.0 "
…nless	? 472	stomach only "		" 97.8 "
…therwise noted)	♂ 473	"	5 mm.	" 109.3 "
	♂ 474	"	3 mm.	" 101.7 "
	♀ 475	stomach only "	7 X 5 "	" 96.7 "
	♂ 476	"	4 mm.	" 113.7 "
	♀ 477	"	9 X 5 mm.	" 100.6 "
	? 478	stomach only "		" 97.8 "
	♂ 479	"	4 mm.	" 100.5 "
	♀ 480	"	8 X 5 mm.	" 98.9 "
	♀ 481	"	7 X 5 mm.	" 103.8 "
	♂ 482	"	3 mm.	" 103.6 "
	♀ 483	"	7 X 5 mm.	" 100.4 "
	♂ 484	"	5 mm.	" 110.0 "
	? 485 stomach only?	"		" 105.7 "
	♀ 486	"	6 X 5 mm.	" 101.3 "
	♂ 487	"	4 mm.	" 107.7 "
	♂ 488	"	4 mm.	" 116.2 "
	♂ 488	"	4 mm.	" 108.3 "
	♂ ~~489~~ 490	"	4 mm.	" 107.7 "

Hooper, 1936 vicinity of San Andreas, Calaveras Co., Calif.

April 26,

(Skeletons only unless otherwise noted)

♀ 491	Cyanocitta stelleri	6×5 mm.	wt.	93.7 g.
♂ 492	"	5 mm.	"	114.4 "
♂ 493	"	3.5 mm.	"	103.6 "
♀ 494	"	6×3 "	"	103.0 "
♀ 495	"	6×4 mm.	"	103.6 "
♂ 496	"	4 mm.	"	110.8 "
♀ 497	"	8×6 mm.	"	96.9 "
♂ 498	"	5 mm.	"	103.0 "
♀ 499	"	9×5 mm.	"	101.4 "
♂ 500	"	4 mm.	"	101.2 "
♂ 501	"	3 mm.	"	106.1 "
? 502 stomach only	"		"	106.3 "
♂ 503	"	3 mm.	"	101.8 "
♀ 504	"	11×5 "	"	95.7 "
♂ 505	"	4 mm.	"	100.0 "
♀ 506 stomach only	"	7×4 "	"	101.3 "
♀ 507	"	10×5 mm.	"	103.2 "
♀ 508	"	7×5 "	"	98.1 "
? 509 stomach only	"		"	101.3 "
♀ 510	"	6×6 "	"	104.2 "
♀ 511	"	8×5 mm.	"	90.1 "
♂ 512	"	4 mm.	"	101.9 "
? 513 stomach only	"		"	108.5 "
♂ 514	"	3 mm.	"	107.1 "
♀ 515	"	10×5 mm.	"	92.6 "
♂ 516	"	4 mm.	"	111.8 "
♂ 517	"	4 mm.	"	112.4 "

ooper, 1936 vicinity of San Andreas, Calaveras Co., Calif.

April 26

(skeletons only; not #523)	♀518	Cyanocitta stelleri	8X5 mm.	wt. 97.5 g.
	♀519	"	6X5 mm.	" 101.9 "
	♂520	"	6 mm.	" 110.8 "
	♀521	"	7X5 mm.	" 94.8 "
	♀522	"	9X5 mm.	" 95.3 "
	♂523	stomach only "	4 "	" 102.8 "
	♀524	"	8X5 mm.	" 106.6 "
	♂525	"	4 mm.	" 110.0 "

526 Jay's nest and 6 eggs (3 eggs each from 2 nests). Collected by Mr. Willey of San Andreas. (See field accounts, April 25, 26, 27)

April 27, 1936 → 527 Lark sparrow's nest with set of 5 eggs. The lark sparrows nest was collected by myself on the outskirts of San Andreas, on April 27, 1936

The following specimen, a rabbit, was

Acc. 4947 collected alive at Sleepy Hollow, Orinda, Contra Costa Co., Calif., on April 26, 1936. It is one of a litter of 5. The eyes were open when found. Rec'd. alive at M.V.Z. May 1, 1936; wt. 46.2 g. Killed May 2, 1936

+ Body Skel.

sex? 528 Sylvilagus bachmani 145-14-37-27 wt. 48 g.

Collected by Master Jack Fatooh.

Hooper, 1936 Berkeley, Alameda Co., Calif.

May 9,

+Body Skel.
♂ 529 Sylvilagus bachmani 154-14-39-32.5 wt. 65.4 g.

Acc. 4956 The above specimen was collected at the same place and by the same collector as E.T.H. 528. It is the second of the litter to be donated to M.V.Z. This specimen was killed one week later than #528.

+Body Skel.
♀ 530 Sylvilagus bachmani ~~May 21,~~ 193-21-50-40 wt. 103.9 g.

Acc. 4969 Collected on April 26, 1936, at Sleepy Hollow, Orinda, Contra Costa Co., Calif., by Master Jack Fatooh. Died in captivity May 21, 1936.

Skeleton only
♀ 531 Sylvilagus bachmani Died in captivity May 19, 1936

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May 22,

Acc. 4970 The following 7 mammals (all skulls only) were received from Mr. A. L. Hobart of Takilma, Oregon on May 21. All specimens evidently were collected by himself (see correspondance of May 18, 1936).

All Skulls Only

532	Canis latrans	3 mi. E junction of E. Fork Illinois R. & state line, 3500 ft., Del Norte Co., Calif.
533	" "	
534	" "	
535	Ursus a.	
536	Procyon l.	E Fk. of E Fk. of Illinois R., between main E Fk. & Dunn Cr., 2100 ft., Del Norte Co., Calif.
537	Bassariscus a.	
538	Spilogale	

Hooper, 1936 Berkeley, Alameda Co., Calif.

May 25.

The following 2 specimens were donated to M.V.
Acc. 4972 Z. by Messrs. Marshall and Richard M.
Bond. The information immediatly below was
copied from notes left with the specimens by R. M. Bond. More
definite information may be sent later.

mounted head & cape only
♀ 539 Ovis sheldoni (?)

"♀ killed on summit of Pinacate Peak Sonora, Mexico — about April 1 (± 30 days) 1915, by Marshall Bond."

mounted head & cape only
♂ 540 Ovis sheldoni (?)

"♂ killed near Gailleta tank, about 15 miles SW (approximately) from Pinacate Peak, Sonora, Mexico, by Charlie Foster (a half breed Papago Indian) about April 1 (± 30 days) 1915."

- - - - - - - - - - - - - - - - - - -

June 2,

♀ 541 Thomomys bottae 196-64-26 wt. 90.3g.

This specimen is no. 111 of the "Benson blondine gophers." It died in captivity on June 2, 1936.

Hooper, 1936 Berkeley, Alameda Co., Calif.

June 8,

skin only
♂ 542 Sciurus 530-240-66-30

The above specimen was donated to M.V.Z. by Mr. E. Lowell Sumner Jr., the collector.

Acc. 4988 It was found on June 8, 1936, "on the Woodside - La Honda Road (the new, paved route) about 2 mi. east of the Skyline Blvd. and 3½ mi. S.W. of Woodside, San Mateo Co., Calif. Altitude at place where found, about 1200 ft. Specimen had been run over by an auto, evidently that morning prior to 8 A.M.; fleas still present and active. Locality where found is characterized by dense stands of redwoods in the shaded canyons; madrone, live oak, elderberry and Ceanothus on the more exposed ridges; Baccharis pilularis and poison oak on the rather infrequent open slopes. The locality is about 5 miles, airline, from the valley land of Burlingame - San Mateo - Palo Alto, and is about 1100 ft. higher; the country is heavily wooded, very sparsely settled, and wildlife conditions have not been greatly modified by man."

This information in "quotes" was copied word for word from a large tag accompanying the specimen. The data was recorded on the tag by Mr. Sumner.

Hooper, 1936 Berkeley, Alameda Co., Calif.

June 15,

+Complete Skel.
♂543 Mustela f.

The above specimen was collected by Mr.
Acc. 4991 Chas. Wilson (of 2147 Russell St., Berkeley) on
June 14, 1936, at 1/4 mi. N Milpitas, Santa
Clara Co.

June 26,

544♀ Perognathus c. californicus 200-109-24-13

The above specimen was collected on Mt.
Diablo on Mar. 22; locality + collection data same as for #190
E.T.H. It was kept in captivity until
June 26, when it was killed.

545♂ Reithrodontomys raviventris (86)-(17)-18-15

Collected Feb. 2, 1936, in Melrose Marsh,
Alameda Co., by Jack C. von Bloeker, Jr.
They were kept in captivity until
killed on June 26.

Hooper, E. T.
1934 - 1936

San Francisco Bay region;
various California counties

General accounts

 3 mi. NE. Vernalis, ~~Stanislaus~~ San Joaquin Co., Calif

Itinerary and Accounts

August 7,

In company with Art Kip, I left Berkeley this morning at 9 A.M with the mouth of the Stanislause River as the destination for the day. While passing through the hills west of Livermore at Altamont (a railroad station listed on the Shell road-map) we noticed a man, on foot, distributing poison grain to ground squirrels. About five miles east of Tracy we turned southward and eastward, passing through Yarmouth to Vernalis. At Vernalis we took the "River Road" northeast to the San Joaquin River. Here we camped on the property of a Mr. Ohm whose house once was located in the thriving center known as "Joaquin City". Now his and ~~a~~ other few houses are all that remain of the town. The name Joaquin City has vanished except in the minds of a few "old-timers". Mr. Ohm has lived here for over 54 years. When he came to this region, he says, the antelope and valley elk were all gone. Man's depredations, he says, are too much for them.

August 7.

As to mammals present now, he gave us a little information. A mountain lion(?) was living along the river bottomlands up until last year. It has not been seen this year. Other animals seen fairly frequently include: coon, oppossom, kit foxes, coyote, skunk and wood rats. These were all inhabitants in the bottomlands before the extreme high water of the springtime of this year. However few carnivores and no wood rats have been seen since. The water drowned them all, he said. Indeed, he seemed to be right; for we searched for seven hours over as many miles of territory and found huts of only two wood rats. These had been completely submerged and not occupied since. And since the water covered the whole of the bottomlands from flood bank to flood bank (the first time in many years) it is not surprising that no more evidences of wood rats could be seen. Fifteen rat and mouse traps set overnight yielded no specimens.

Dense thickets of wild rose, nettle,

August 7,

and willow interspersed with a few valley oak and California bay trees offered what seemed to me to be ideal situations, i.e., "habitats, for wood rats.

"Coon," kit fox, and possibly (?) oppossum tracks were seen on the sandy shores of the river proper. If they are here, rodents and other small animals must also be here! Yet not even a white-footed mouse found my traps sufficiently enticing to spring one of them.

August 8,

Since nothing was in my traps this morning we decided to pick up camp and move on up river to some so-called-by-Ohm "virgin land" that was not along the river bottom and had not been flooded by the water. This place is approximately four miles farther north from here, near the Banta-Carbona irrigation canal pump.

After spending two hours hiking, or more exactly tearing our way through brush (which seemed to have been above water) we decided to try for some of the stream beds draining eastward from the Diablo Range.

August 8,

On the way south from the aforementioned locality and about 7½ mi N.E. Vernalis I picked up a Thomomys skull by some of the many Citellus b. beecheyii holes that abound in the region. I also noted seven prairie falcons and one sparrow hawk sitting on telephone wires and poles at the same locality. The prairie falcons are much more wary of motor cars and take to wing much sooner at ones approach than does the sparrow hawk.

Traveling south from Vernalis we reached Crows ~~turned west~~ Landing and there turned west up Orestimba Cr. to the ranch house at the end of the road, about six miles west of Crows landing. But here again the absence of brush and suitable food and cover made a stop here for wood rats seem absurd. So, at the suggestion of the man residing in the farm house we returned back down Orestimba Cr. in order to connect with the road extending from Newman up Las Garzas Cr., where, it was reported, we would find many wood rats and abundant brush.

At Newman while in a service station we chanced to meet a Mr. Klehn who

August 8,

owns property on Las Garzas Cr. He kindly offered to let us camp on his property and, since he was planning a trip there later in the afternoon, said he would accompany us himself. At 4 P.M. we left Newman, Stanislaus Co., traveled ten miles over roads boasting of better days in the distant past and arrived at his grounds which I will list as collecting camp 1 since it is here that I will trap for at least two nights.

10 miles W. Justine (and Newman), Stanislaus Co.

August 9,

About 5 miles north of Merced Co. and 5 miles east of Santa Clara Co. this camp is within the Red Mts. (of the Diablo Range) and is on the east-drainage side. The country here is typically of the upper Sonoran zone. Manzanita, Coulter pines, live oak, ash, and some poison oak are all found here, chiefly on the north-facing slopes. Chemise and Artemesia constitute the dominant plant growth on the south-facing slopes. Birds seen here at camp include the following:

10 mi. W. Gustine (and Newman), Stanislaus Co., Calif.

August 9,

Brown towhee, brown thrasher, valley quail, California jay, green-backed goldfinch, mourning dove, turkey buzzard, wren-tit, plain titmouse. The quail are very abundant, several coveys (brood of year most likely) of from 8 to 12 birds each having been seen within an area of 1 square mile.

The south slope of this canyon looks like it ~~should be~~ suitable environment for pocket mice and perhaps kangaroo rats. However, the chances of securing wood rats will probably be none too good. The brush is too open and too dry.

Last night I set out thirty mouse and rat traps (20 and 10 respectively) along the creek bottom and up each side of the steam bed. This morning I found 3 Peromyscus truei and 1 Perognathus c. in my traps, a very poor percentage. A thorough poisoning campaign carried on by the landowners themselves against rodents two years ago probably reduced the numbers of small native animals to a low level. Woodrats, once fairly abundant here are now seldom, if ever,

Esper, 1935 10 mi. W. Gustine (and Newman), Stanislaus Co., Calif.

August 9,

seen. Squirrels are regaining their "usual" level much sooner than the other rodents. And considering their "prolificness", hardiness, and general adaptability, this is easy to imagine.

The cottontail I shot while collecting my traps this morning.

~~When~~ After talking with several of these San Joaquin Valley farmers and stockmen I am contacting a angle different from that presented by scientific societies. How shallow, transparent and at times utterly irrational are these agricultural men. Very often they realize something of the complexity of nature but most often they "can't see the forest for the trees".

August 10,

Last night I set out 31 traps on the opposite hillside from that at which we are camped, that is on the south-facing slope. The slope is very steep, about 35% and the soil ~~as~~ very thin covering over the harder sedimentary deposits underneath. Here among chemise and wild buckwheat I set out the traps.

10 mi. W. Gustine (and Newman),
Stanislaus Co., Calif.

August 10,

This morning I found the following specimens in the traps: 2 Perognathus, 2 Dipodomys, and 5 Peromyscus. Since three of the white-footed mice were not over two months old they were discarded; the other specimens were made into study skins.

7 mi. E. Mariposa, Mariposa Co., Calif.
August 11,

We are now camped at the above locality, having moved here from across the Valley yesterday afternoon. This camp is located on the property of a Mr. Woodard about 5 mi. E. Mariposa on the Mormon Bar-Wawona road and 2 mi. N. of this road. The zonation is chiefly Upper Sonoran, though a few Yellow Pines indicate that the Transition zone is near, altitudinally. Digger Pine (Pinus sabiniana), Quercus kelloggii, Ceanothus sp., Rhus diversiloba, alder (Alnus rubra?) Arctostaphylus and Salix sp.? constitute the major portion of the plants present, however.

Birds seen here include the following:

oper, 1935

7 mi. E. Mariposa, Mariposa Co., Calif.

ddtional:
rning dove,
y vulture,
warbler,
poorwill, great
d owl, screech

August 11,

Golden pileolated warbler, red-shafted flicker, valley quail, plain titmouse, California jay, brown towhee, spotted towhee, green-backed goldfinch, California woodpecker, slender-billed nuthatch, pallid wren-tit, bush-tit (flock of ± 15), black-throated gray warbler.
Judging from trapping results of last night the species of mammals here are not too abundant. From 38 traps (13 rat and 25 mouse) set along the creek bed and under willows, poison oak and oaks 3 Peromyscus maniculatus only were taken. These ~~two~~ three mice and one Bufo, captured in a field of wild oats near the creek, constitute the total catch for the day. I saw two Eutamias merriami running about on granite boulders under oak trees and caught the odor, only, of a skunk. No other mammals have been seen, though nests and droppings of wood rats and mounds made by pocket gophers are abundant. Mrs. Woodard says both the latter and ground squirrels (which can't be very abundant since none have been seen yet) destroy her garden and potted

7 mi. E. Mariposa, Mariposa Co., Calif.

August 11,

plants. The wood rats come in the open door of her house and get into her food and window flower boxes. One potted fern she had was destroyed by the animals.

August 12,

Out of thirteen rat traps and twenty-five mouse traps set along the creek only a single mammal was found this morning. The specimen, a Peromyscus maniculatus was discarded. Mammal holes are abundant, sign is in evidence at many places. Why don't I catch more specimens? The traps are set in likely places and baited with the usual moistened oatmeal. Perhaps the (rodents) animals are feeding on fresh cuttings of plants during this exceptionally hot period which has ensued for the past two days. Tonight I shall try pieces of prunes as well as oatmeal and see if the results are any better.

Mrs. Woodard says the gophers and moles play havoc with her flower garden. She showed me several elevated "runways" of moles as well as more gopher

7 mi. E. Mariposa, Mariposa Co.,
Calif.

Aug. 12,

diggings.

I captured and preserved six bats of the genus Myotis last night and this morning. They were found hanging within several old, black, rubberized coats found hanging in one of the outhouses on the Woodard property. Droppings underneath each roosting place and parasites commonly known as "sheep ticks" on the coats indicated that the bats used these places regularly.

Wood rat nests are located among the granite boulders, in the crevices, for the most part. In such situations the hut cannot be more than two feet high, or at least none have been seen any higher. The houses are made of driftwood; no fresh cuttings have been seen around these huts. One nest proper was found lying out on the granite boulder not covered by any sticks but protected, to a great extent by the overhanging rocks which protruded outward for about six feet. One old nest was located up in a live oak tree about six feet from the main trunk, eight feet from the

7 mi. ~~W.~~ E. Mariposa, Mariposa Co., Calif.

Aug. 12,

periphery of the branches and ten feet off of the ground. The hut evidently has not been used for several years. Perhaps streatori chooses rocks for his home site and does not construct huts the size of those built by the coast forms. Those old huts found along the San Joaquin River were only two or two and one half feet high. However, quite likely some of the covering material had been removed at the time of the high water. ~~which~~

Aug. 13,

Last night I set out 25 mouse and 12 rat traps in a different type of habitat. About 1/2 mile north of camp there is an old deserted cabin placed in a sheltered glen near the top of a hill and about 3/8 mi. from any creek bottom. About this house are several outhouses and brush piles, all of which had fresh fecal material and trails seemingly made by wood rats. At such vantage points I set traps baited with either cheese and oatmeal or pieces of

(Ro)per, 1935

7 mi. ~~W.~~ E. Mariposa, Mariposa Co., Calif.

Aug. 13,

prune and oatmeal. Most of the mouse traps were set near Arctostaphylus bushes and near rocks in the hope of capturing some "Kangaroo rats" which Mr. and Mrs. Woodard claim are present here.

This morning I found one young wood rat, one juvenile Beechey ground squirrel and three Peromyscus californicus in my traps. Several traps were sprung and found empty. The traps baited with dried prune and oatmeal had not been touched, while those baited with cheese and oatmeal or oatmeal alone either held an ~~mouse~~ animal or were sprung. The woodrat was caught at the edge of a lumber pile under which it probably was living. Perhaps many of these smaller huts seen in this region belong to the californicus parasitic mice and are not wood rat nests at all. Examination of the fecal material saved may throw some light on the question, for it is material of this size and shape that is abundant everywhere about crevices in rocks, brush piles, and other suitable places

7 mi. E. Mariposa, Mariposa Co., Calif.

Aug. 13,

Mr. Woodard believes that the relative scarcity of wood rats in the traps can be explained by the fact that ~~the~~ fruit is so abundant now, ie., manzanita, poison oak and other berries, that they will not take dried oatmeal and grain. However, if this be so, why wouldn't they take the dried prune bait?

I found another bat, genus Myotis, hanging in the barn. This is now preserved as a study skin. No other bats, other than those of the above genus, have been seen flying about in the evenings.

This afternoon, because of pressure of time, we must leave this region. I would like to spend a week here now to devise and test some ways of capturing more of the animals present here. No kangaroo rats, chipmunks, skunk, and coyotes have been caught though have been heard or seen. At 1 P.M. we leave for Yosemite via the Wawona road.

4 mi. E. Bishop, Inyo Co., Calif.

Aug. 18.

After a few days stay in Yosemite Valley we left for Bishop, going via. the Big Oak Flat Road and Tioga Pass and arriving in Bishop about 5 P.M., Aug. 16. On the way over here I noticed few mammals. Golden-mantled ground squirrels in the Canadian zone, Belding ground squirrels, chiefly in the Hudsonian where blooming flowers indicate that the heighth of springtime has just been passed. Tahoe chipmunks in Canadian, alpine chipmunks in Hudsonian were all that were seen during our mid-day drive.

Last night I set out twenty mouse traps along the sandy, sage and squaw-tea-covered sandy banks of the Owens river bottomlands. Kangaroo rat holes were abundant.

This morning I found 3 D. leucogenys? and 4 P. m. sonoriensis in my traps. All specimens but two of the Peromyscus were preserved as study skins; the two white-footed mice were discarded. No D. merriami were obtained in this, a more sandy habitat than that at the locality 2 mi. E. Bishop. Perhaps the merriami

4 mi. E. Bishop, Inyo Co., Calif.

Aug. 18,

rats in this region are confined, more to the regions where the plants are more abundant and the soil less sandy. Only more extensive trapping will throw light on the question. I saw no cottontails while traveling to and from the trapping locality, however did see six or seven black-tailed jackrabbits. Cottontails were abundant here in May, why didn't I see some this time?

Tomorrow morning we leave for Berkeley via the Sonora Pass Road, thus concluding this brief vacation trip.

Hooper, 1935

Itinerary

San Joaquin R., 3 mi. NE. Vernalis, San Joaquin Co., Calif.

Oct. 18,

Left Berkeley yesterday, October 17, at 1 P.M. in company with Dave Johnson. At approximately 3:30 P.M. we arrived in Vernalis, which is a small town just ~~south~~ north of the San Joaquin - Stanislaus County line, and is on the road from Tracy to Newman. Vernalis itself is in ~~Stan~~ San Joaquin Co. Inquiring at the general store where "Kincaid's Ranch" was located (the locality where R. T. Orr in 1931 took two Neotoma fuscipes and several brush rabbits), we were told that the ranch had passed into other hands and that the new owner quite likely would not be amenable to any trapping activities. Therefore, we decided to approach the officials of El Solyo Ranch, a large ranch approximately 3 mi. due S. E. of Vernalis. A permit to hunt & camp on the "game reserve", which includes all the river bottomlands in this immediate vicinity, was given readily. However, a reconnaissance over the area soon convinced us that trapping would prove to be unprofitable, since most of the land bordering the river had been either

Hooper, 1935

San Joaquin R., 3 mi. N.E. Vernalis, San Joaquin, Co., Calif.

Oct. 18,

harrowed or plowed.

Without further ado, we drove to the property of Mr. Ohm, where I camped for one night earlier this summer. Mr. Ohm's house is situated at the site of a town once known as Joaquin City. It, alas, is no more. Mr. Ohm said that he had seen no more wood rats since the time of high water, but if we were interested in bats, he could show us where were "plenty". Accordingly, he led us up to the attic of his house. There on the tops of rafters and joists we found fecal material of bats about one inch deep. In crevices behind joists, etc. were "numerous" bats which could not be reached by us even with the aid of forceps.

After setting up camp out on the "bottomlands" approximately 1/4 mi. from Ohm's house, I set out 31 mouse traps and 14 rat traps. These all were placed near or along the face of the flood banks and under willow bushes (*Salix* sp.?) and oaks (*Quercus lobata*) [and Oregon ash (*Fraxinus oregona*)] which are quite characteristic of this Lower Sonoran,

Hooper, 1935

San Joaquin R., 3 mi. NE. Vernalis, San Joaquin Co., Calif.

Oct. 18,

riparian association.

This morning I found the following mammals in my traps: 1 *Neotoma fuscipes* and 3 *Mus musculus*. The wood rat was caught beside a willow clump and a fallen oak log. Within the log it probably nested. I found more fresh sign elsewhere but caught no more rats in my settings placed nearby. Apparently some animals survived the recent flood and are now "reclaiming" the bottomlands. Last August, 1935, I caught nothing ~~and~~ in fifteen trap nights. Now in forty-five trap nights I get four animals! But more important, Dave Johnson took 5 ~~mam~~ mammals out of 24 traps set last night out 1/4 mi. from the flood banks to which the flood waters reached continuously for "3 weeks" [quote Mr. Ohm]. This reclaiming of territory must take place to a greater or less extent each year.

For birds seen, see notebook of D. H. Johnson.

San Joaquin R., 3 mi. NE. Vernalis, San Joaquin Co., Calif.

October 19.

Yesterday we found fresh gopher workings near the border of the river bottomlands. The soil here is of the sandy-loam type and a light tan in color. Vegetation in the immediate area includes: (1) a small annual which grows very low over the ground forming a dense mat and bearing fruiting bodies that are covered with small spines; (2) a larger "bur-weed" with rootstocks slightly fleshy; average height of plant 3 ft. We set out six gopher traps in the runways (which seem to run no deeper than 6 in. beneath the surface) of these workings. We examined the traps at 3 P.M. and found that one had been covered with dirt. It was reset; and at 5 P.M. we found a gopher in this and another set. One of these specimens bears my collecting number (148?); the other, taken in a neighboring burrow, is being put up by D. H. Johnson (924?).

...anthium = canadense

I found a Hyla along the shore of one of the many sloughs or ox-bow lakes found here. I set out 10 mouse traps and 30 rat traps last night. The rat traps were placed near wood rat nests, the mouse traps at intervals of approx. 20 paces under oaks and willows for the main purpose of

October 19.

providing some sort of continuity to the trap line. At least 15 wood rat nests were found, all with fresh sign about them. Though most of the nests are in oak trees (*Quercus lobata*), some were found in willow stumps. [margin: ...on ash (*Fraxinus* ...ni., and buttonwillow ...*halanthus occidentalis*)] They were composed of dry, water-worn sticks up to 4 ft. in length + 2 in. in diameter, were not over 2 ft. in height ~~and~~ were placed at heights above the ground varying from 3 feet to 20 feet. We so disturbed one nest in an oak tree that 2 rats [1 juv. ♂, and 1 ♀ with 4 conspicuous inguinal mammae] ran out. One was shot, the other (? perhaps) was trapped last night by D. H. Johnson. The rats here are distinctly inclined toward arboreal habits, more so, apparently than other members of the *fuscipes* group. No nests have been seen on the ground, though burrows at bases of trees harboring nests were seen. Is this an extreme adaptation of a tree-inhabiting characteristic of the *fuscipes* group, made extreme because of the annual flooding? Perhaps selection has been active in "weeding" out the non-tree-climbers.? At any rate there are certainly many more rats here than I expected, and there are apparantly more *nests* than were here

San Joaquin R., 3 mi. NE. Vernalis, San Joaquin Co., Calif.

October 19,

in August. The animals must have remained in the trees during the flood time, when the ground was covered with water.

This morning I found two good adults in my traps. Both were taken from traps set "up in the branches of the willow trees". They bear numbers 149 ♂ + 150 ♀ (mammae enlarged). The mouse traps were undisturbed. One wonders why the *Peromyscus maniculatus* are not plentiful here. They are "ground-dwellers" and could easily be drowned out by the high water. However, so are gophers, yet one gopher system was found out approx. 3/8 mi. from the higher flood banks, in a region which was under water to a depth of at least three feet. The animal must have migrated this distance since March or April when the water was so high.

Berkeley, Alameda Co., Calif.

October 20,

Yesterday at 1:30 P.M. we broke camp, packed the truck so as to be ready to leave when we wished, then visited several wood rat nests. We thought perhaps other specimens could be secured if

Sper., 1935

Berkeley, Alameda Co., Calif.

October 20,

one of us "poked" or "disturbed" the nests ~~and~~ while the other stood by with a gun to shoot any specimens which might emerge. However our search was fruitless and at 2:45 we left for Berkeley, after picking up the two gopher sets we had left out. Nothing was in them. We arrived in Berkeley at 4:30 P.M.

Museum of Vertebrate Zoology, Berkeley

Nov. 1,

While watching a Townsend warbler, 2 ruby-crowned kinglets + several Audubon warblers foraging in the live oak tree just outside my office window on the southwest side of the Life Sciences bldg., I was astonished to see a red-shafted flicker fly up to and perch on the border of one of the fluted columns or pilasters. The bird clung to the face of this cement column for a space of 1 2 min. then shifted upward probing + pecking on ledges + into crevices until it reached the face of one of the "cement" cows" where, the surface too slippery, it lost its hold, fluttered downward, then up

Berkeley, Alameda Co., Calif.

Nov. 1,

to a ledge, came to rest & finally flew away.

Time elapsed: approximately 5 min;

Time of day: 12:45 P.M.; weather: cloudy; slow rain falling.

25', W. side El Cerrito Knoll, Albany, Alameda Co., Calif.

Jan. 22, 1936

In company with D. H. Johnson & F. G. Palmer, I made a short trip out to the tidelands and hillsides west of El Cerrito Knoll this morning. This Knoll is a monadnock-like hill that rises from the lowlying ~~bay~~ shore and the low Berkeley foothills. ~~It is a~~ vegetation there includes Eucalyptus, Baccharis, fullers teasle and numerous kinds of annual grasses.

Along the tidelands in the Salicornia I noted pipits, audubon warblers, and English sparrows. Among the Baccharis & teasle song sparrows, white-crowned sparrows, juncos anna hummingbirds, English sparrows, house finches. On the grass-covered hillsides & flat areas meadow larks were heard. A kingfisher was seen sitting on a telegraph wire, where it was uttering its ~~usual~~ more common, raucous call. A red-shafted flicker was noted as it flew from one Eucalyptus tree to another. A red tailed hawk soared up above the tops of the "gum" trees.

Hooper, 1936

1 mi. W summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Feb. 16,

Members of "overnight" party to Mt. Diablo = D. H. Johnson, F. G. Palmer + E. T. Hooper. Time of departure = 4 P.M. Time of return with traps 10 A.M. Weather: Rain at Berkeley; cloudy at Lafayette + Walnut Cr.; cold heavy fog (or within clouds) from approximately 2000 ft. on mountain on up, ± 30 mile wind.

At Walnut Cr. we followed the highway leading northwestward toward Pittsburg then turned north eastward through the west gate of the Mt. Diablo State Park. We followed this "west" road on up toward the summit of the mountain to "Laurel Dell" and "Juniper Flat (or Nook)", the names applied to two camp grounds near the main road and approximately 1½ mi. (by road) from the crest of the mountain. Here we turned left (north) ~~down~~ through the camp ground to the "Deer Flat" trail (1¼ miles from the Park boundary). We followed this trail for several hundred feet until we passed through the gate marking the Park limits. Just outside the Park boundary we set out our traps — 150 for the 3 people.

The superficial layers of the substrate

Hooper, 1936 — 1 mi. W summit Mt. Diablo, Contra Costa Co., Calif.

Feb. 16,

here are composed of ~~decomposed~~ broken sandstone and shale for the most part; a few outcrops of harder rock—though probably not igneous in nature — were visible. Vegetation present on this south west facing slope included chiefly small annual grasses, but scattered about were Coulter Pine (P. coulteri), Ceanothus sp., Quercus chrysolepsis, Baccharis.

Mammal sign was abundant. Microtus + Citellus burrows and runways abounded. Two Neotoma fuscipes nests were found among boulders. Fecal pellets of Peromyscus, Neotoma, Microtus, Citellus were identified. Burrows seen, which were intermediate in size between those made by Microtus and those made by Citellus may have been constructed by Dipodomys; these burrows were abundant. One Citellus b. beecheyi was heard calling. Old squirrel burrows were being used by smaller animals, for small holes were often found at or near the bottom of partially filled in squirrel burrows.

I set out 48 mouse traps at approximately 10 paces spacing on this hillside. Found in traps this morning: 7 Peromyscus m. gambelii (5 discarded); 5 P. tr. gilberti (2 discarded); 2 Microtus c. californicus; 4 Reithrodontomys m. longicaudus (1 discarded).

oper, 1936

1 mi. W summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Mar. 22,

A short over-night trip was made to the above locality - the same as for Feb. 16, 1936. The purposes of the trip, as regards mammal studies, were twofold. First, a larger series of _Dipodomys h._ was desired. Second, it was desired to determine, if possible, if a particular area which had been trapped fairly extensively about a month ago had become "re-infested" with _Peromyscus_. On Feb. 16, an area on a south-west facing slope ~~was~~ trapped well. Numerous _Peromyscus maniculatus_ and fewer _Microtus californicus_ and _Reithrodontomys megalotis_ were removed at that time. Now, on ~~Mar.~~ Feb. 16, would ~~the~~ an equivalent number of the same species be obtained on Mar. 22, or would other "less-forward" species be obtained - since _Peromyscus_ perhaps would not "fill up the traps." The degree of error, of course, would be large considering the time lapse, the relatively small number of traps out, and the use of non-uniform traps - live traps were used on Mar. 22.

20 "Benson" live traps placed in the above area yielded the following: 2 _Peromyscus maniculatus_, 2 _Reithrodontomys_, 2 _Perognathus californicus_, and 1 _Microtus californicus_.

ooper, 1936

1 mi. W summit Mt. Diablo, 3000 ft., Contra Costa Co., Calif.

Mar. 22,

The Peromyscus, + microtus were relatively less abundant, a new species, Perognathus, was trapped — in comparison with catch of Feb. 16. However, perhaps the pocket mice were not out of hibernation in February.

About 70 "standard" mouse traps were set out as a line separate from the live trap line. These guillotine traps were placed on an average of 15 paces apart along the top of and west brow of a hill. The ground was rocky; soil layer very thin — probably not over 4 inches on the average. Vegetation present: chiefly annuals (grasses, ~~Ranunculus~~ Eschscholtzia); scattered clumps of Artemesia; California Bay (Umbellularia) ~~and~~ canyon live oak (Quercus chrysolepis) and poison oak (Rhus diversiloba) in side canyons. Mammal sign was abundant.

This morning I found the following animals in my traps: 13 Peromyscus m. gambelli, 3 Peromyscus t. gilberti 1 Microtus c. californicus, 8 Dipodomys heermanni and 1♀ horned lark (Otocoris alpestris)

San Andreas, Calaveras Co., Calif.

April 24,

Left Berkeley at 4 P.M. in company with Miss. Mary Erickson. Drove through Tracy and Stockton; reached San Andreas about 9 P.M. Had stopped for 40 min. in Stockton for dinner. Since we were in a hurry, we noticed few birds along the road. The usual red winged blackbirds, meadow larks, California shrikes, English sparrows, + linnets were seen intermittently after we passed through the Livermore hills. Dark put an end to further observation.

On reaching San Andreas, we stopped at Pac. Tel. & Tel. office to find address of a Mr. Wiley, who signed the last letter to Dr. Grinnell regarding the "jay hunt" as "Secretary of the Calaveras County Sportsmen Association". This title, I have reason to believe was adopted for the express purpose of making the "jay shoot" personnel sound like a real organized body. Sans "jay shoot", sans title, I believe.

Not so → E.J.H.

Had no trouble locating Wiley, so called on him immediately. He extended the "glad hand" readily to us and was quite pleasant. We, in turn, expressed our appreciation for the favor granted us, namely, allowing us to be at hand for the shoot.

Apr., 1936

San Andreas, Calaveras Co., Calif.

April 24,

The following are important points supplied by Wiley during our conversation with him: The hunt is county wide; anyone can take part who lives in county. (He didn't state that the hunting for jays must be limited to the county alone, but intimated as much indirectly). Those who desire to hunt are divided into two teams. A hunter doesn't know, the year, which of which team he will be a member until the day of the shoot. Heretofore the teams have been formed at least a day before the shoot. The hunts are an annual or semi-annual affair, most often the former. About 800 birds were killed last year. As many as 1200 or 1500 have been killed during a previous year. All jays and hawks are brought in for the counting. Hawks may be worth 5 points [1 jay = 1 point]. Cats (which are abundant here in feral state) should be worth at least 5 points; they do more damage to birds than do jays. After the counting of the birds, a barbeque to be held this year. A dinner at cafe followed the hunt & counting during each previous year. The losing side pays for food bill. Beef & lamb to

Apr, 1936

San Andreas, Calaveras Co., Calif.

April 24,

be ~~cooke~~ cooked this year. Doesn't believe "shoots" cut down on number of jays — seems to be as many to kill the next year. [However, as many as 1200 or 1500 have been killed before! Note bag this year!] The most benefit comes from the pleasure derived from hunting and from the mixes at the barbeque. Other birds are often mistaken for jays: yellowhammers [= red shafted flicker?] sometimes flies like a jay; bush robin [= brown towhee?] have profile in tree like a jay; woodpeckers (reddish-black on belly; black back) [= Lewis woodpecker. Chicken hawks (the small low-flying hawks) are of more harm to quail and other birds than are the big circling hawks. All count in this contest, though.

[brackets inclose interpretations]

Wiley's "contributions" continue: Has seen [past completed action of ~~verb~~ or progressive action?] quail nests destroyed by jays. A friend of his also saw a jay fly from chicken roost with a hen's egg on its bill. These hawk shoots might go too far, though, he said. This ~~predator~~ → prey business is complicated. Maybe if the jays are destroyed other worse "things" will take their place. End of Wiley for the moment.

Hooper, 1934 San Andreas, Calaveras Co., Calif.

April 24,

Wiley seems to have been well educated. He is at present a mining engineer. The haphazard drawl he uses in speech follows naturally from contact with the people of this region

After conversing with Wiley, M. Erickson & I returned to the main street of town. Took the last two rooms in Hotel Trent - the only hotel in town.

April 25,

San Andreas is a town of about 15 or twenty small stores (including filling stations & garages. Though this is Saturday, during the short time we have been in town the streets have been almost deserted. The town lies in a small valley near the N. Fork of Calaveras River - a river of about 10 C.F.S. now at the bridge just south of town.

The hills about the place are gentle and rolling, in shape and are covered with vegetation of the following main kinds:

1. Avena - wild oats abound.
2. P. sabiniana - digger pine
3. ~~Man~~ Arctostaphylus - manzanita
4. scrub oak

Cooper, 1936 San Andreas, Calaveras Co., Calif.

April 25

5. *Quercus lobata* + *douglasii* broad leaf oaks.
6. *Rhus diversiloba* poison oak.

The country is pretty much the same as regards floral + faunal associations + zonation, as far south at least as Valley Spring (10 mi. from San Andreas), and as far north as Mountain Ranch, 12 mi. N E of San Andreas. At these places Upper Sonoran begins to give way to Lower Sonoran + Transition. At 2 mi. SW of Mountain sugar pines and yellow pines were first noted. -

Made the first census of a region about 3 mi. W of San Andreas and about ½ mi. from the N. Fork of Calaveras R. On the cooler north and east facing slopes, ~~[illegible]~~ scrub-oak (*Q. wislizenii*), digger pine, (some) poison oak and manzanita ~~were~~ are the dominant perennials; wild oats was the dominant annual. On the south and west facing slopes, chaparral ~~was~~ is dominant; very few annuals are present, and are not abundant in every instance where present.

I worked over the north + east-facing slopes entirely. Jays would not be abundant in pure chaparral stands! Wren-tits (in abundance) were heard calling from these slopes.

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MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality 3 mi. W. San Andreas [illegible]
Date [illegible] 25 193[illegible]
Observer [illegible]
Time in field 2 hrs. 15 min.
Approximate no. miles 2 mi.

Nature of route (zone, fauna, associations) [illegible]
Weather Clear, warm

SPECIES	HOURS → A.M. 7:15	7:45	[illegible]	8:45	9:15 – 9:30	TOTALS
green-backed goldfinch	II	I	IIII	II		11
western bluebird	III	I				4
lark sparrow	卌					5
robin	II					2
black phoebe	I	I				2
brewer blackbird	III				卌II	10
linnet	II					2
brown towhee	IIII	II	I	卌IIII	II	18
Calif. jay	卌III	卌I	III	III 卌卌	IIII	34
Calif. quail	III		III	卌III	III	18
Calaveras warbler	II					2
golden-crowned sparrow	III	IIII		III	I	11
vireo	I					1
junco (or chipping sparrow)	I					1
bushtit	II					2
steller jay	I				IIII	5
woodpecker						1
slender billed nuthatch		I				1
red-shafted flicker		II				2
violet green swallow						2
white-crowned sparrow		II				2
wren tit		II	I		III	6
Calif. woodpecker			III	卌	I	9
" purple finch			II	III	IIII	9
unknown	卌卌	II	卌	[illegible]	[illegible]	35
TOTALS (hourly and grand)	51	28	29	56	36	198

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MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality 5 mi. W. San Ardo

Date Apr. 25, 1926

Observer E. I. Hooper

Time in field 2 hrs 15 min

Approximate no. miles 2

Nature of route (zone, fauna, associations) upper sonoran; digger pine, live oak, blue oak, manzanita

Weather

Species / Hours ⟶	A.M		8:15	[illegible]	9:15	Totals
spotted towhee			1			1
barn swallow			1	[illegible]		12
ash throated flycatcher			1	1		2
titmouse			1	[illegible]		6
sparrow				11		2
mourning dove				111		3
golden pileolated warbler					11	2
turkey vulture					1	1
TOTALS (hourly and grand)			4	24	3	31

UNIVERSITY OF CALIFORNIA

MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality: 2 mi. W Mountain Ranch

Date: Apr. 25, 1936

Observer: E. T. [illegible]

Time in field: 2 hrs. 10 min.

Approximate no. miles: 2

Nature of route (zone, fauna, associations): Mixed [illegible] [illegible] blue oak, [illegible] pine, [illegible]

Weather: fair, clear

SPECIES	10:30	11:00	11:20	11:50	12:30	TOTALS
brown towhee	1	1111		1		6
[illegible]	1					1
goldfinch	11	11				4
Calif. jay	1			111		4
black-throated gray warbler	1					1
spotted [illegible]		1				1
red-tailed hawk		1				1
barn swallow		1111	111	1		8
[illegible] warbler ?		1	1			2
western [illegible] ?			111	1		4
purple finch			1111	1111		8
bush tit			111			3
white-crowned sparrow			1			1
titmouse			11			2
jay (Calif. or Steller)			[illegible]			3
junco			1			1
killdeer				11		2
woodpecker				1		1
lark sparrow				11		2
[illegible] ?				1		1
western bluebird				1		1
unknown	111	1111	[illegible]	[illegible]		21
TOTALS (hourly and grand)	9	17	26	26		78

1m-2,'20

San Andreas, Calaveras Co., Calif.

April 25

For list of the birds seen, refer to the census sheet of the aformentioned locality & for the above date.

Citellus b. beecheyi ~~were~~ the only mammal seen.

Our plan for locations for census taking, is in brief as follows: one census (each person taking a separate census over a separate area) south of town - where more Calif. jays would perhaps be found; one in the immediate vicinity of San Andreas - so that we could check on those hunters who were too lazy to leave their back yards; one census north of town approaching or in the lower Transition zone - where more Stellar jays might be found.

The first census has been briefly described. The second census covered about the same distance as the first (2 mi.) ~~and~~, was 5 hrs. 10 min. in duration and took place about 10 mi. N.E. of San Andreas and 2 mi. W of Mountain Ranch.

Here the Transition influence was well indicated by sugar & yellow pines. They were mixed with digger pines and were

April 25,

dominant as to numbers on north facing slopes. Because my route as outlined carried me through so much chaparral, where the bird population was comparatively low and the creatures difficult to see, the total number of birds seen here was much lower than at the locality S. of San Andreas. Less than 1/5 the number of jays were seen. See census sheet —

Returned to San Andreas at 1 P.M. for lunch. Will take the third census here from 5 P.M. to 7 P.M. today. On monday we will catch this region the first thing in the morning, 5 A.M. – 7 P.M. At the cafe more information re. "jay hunt" obtained. Hunts have been held for at least 11 yrs. The "proprietress" of the cafe contended "I don't think its right to kill them, even if they are 'vermin'. They may kill a few chickens & quail but they were put here for a purpose." — a teleological viewpoint?

Riley informed us this P.M. that the jay shoot had been held intermittently ever since he was a boy. [Age now = ± 35 yrs].

UNIVERSITY OF CALIFORNIA

MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality San Andreas

Date April 25, 1936

Observer E. J. Hooper

Time in field 2:15

Approximate no. miles 3

Nature of route (zone, fauna, associations) Upper Sonoran: digger pine

Weather Clear, warm

SPECIES	P.M. 4:30	5:00	5:30	6:00	6:30–6:45	TOTALS
Linnets	IIII			II		6
brown towhee	I	II	II		II	7
California jay	IIII	IIIIIII	II	III		16
lark sparrow	III			IIIIIII	IIII	14
meadow lark	I	I		I		3
white-crowned sparrow	I					1
Calif. woodpecker	I		II			3
woodpecker ?		I				1
chipping sparrow		III	IIIIIII	IIII	III	17
Steller jay		IIII	IIIIIII			11
jay (Steller or Calif.)		IIIIII				6
Calif. quail		IIIIIIIII	II	I		12
titmouse		I	I			2
vireo ?			II			2
Calif. purple finch			IIIIIII	IIIII	II	14
spotted towhee			I			1
Lewis woodpecker			I			1
wren tit			II	I		3
Western gnatcatcher				I		1
flycatcher				I		1
bush tits				[illegible]		2
horned owl				II		2
Brewer blackbird				IIIIIIII	III	11
mourning dove					I	1
unknown	IIIII	II	IIIIIIIIIIIIIIII	IIIIIIIII		33
TOTALS (hourly and grand)	21	31	49	51	15	167

1m-2,'20

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MUSEUM OF VERTEBRATE ZOOLOGY CENSUS SHEET

Locality San Andreas

Date April 25, 1936

Observer E. T. Hope

Time in field 2:45

Approximate no. miles 3

Nature of route (zone, fauna, associations) Upper Sonoran; digger pine

Weather

Species	Hours → P.M.				[illegible]	Totals
western robin					1	1
Lincoln or [illegible] finch					1111	4
warbler " "					1	1
TOTALS (hourly and grand)						6

1m-2,'20

 San Andreas, Calaveras Co., Calif.

April 25,

~~Information~~ from Mr. Schwoerer continues:
Evidence of quail destruction by jays = young quail seen eaten by jays - only brains of young eaten. Also eat chicken eggs. The jay population seems to be about the same now as before. The reason for the decrease in numbers of jays brought in is that the interest in the shoot has lagged and the men are lazier. Quail populations are not influenced to a great extent, if any. Rather the decrease is due to (1) great increase of hunters; (2) extremely dry seasons during the last few years, resulting in decrease in food & water supply; (3) late rains in the years resulting in killing of warm eggs during incubation period; (4). removal of cover ~~due to~~ by recent extensive forest fires during past few years.

Schwoerer said there was considerable poaching carried out here. As many as 15-25 deer at a time have been taken out of the region out of season. It is a commercial proposition; the deer are marked ~~to~~ Stockton or the Bay cities. The last few loads went out under ~~x~~ loads of Xmas trees. One lodge in Oakland - Elks or Moose - consumed 25 head.

The ~~sports~~men here resent the intrusion

 San Andreas, Calaveras Co., Calif.

April 25,

Took a third census today around the ~~southern~~ eastern and southeastern periphery of the town of San Andreas. The zonation, floral & faunal association is the same as the locality 3 mi. W of San Andreas where the first census was taken. To date, have recorded on census sheets a total of 79 jays for approximately 7 miles covered. They are wary & hard to see in dense oak stands.

Contacted Mr. Schwoerer, the supt. of school and evidently president? of the Calaveras Co. sportsmen club. Secured the following information from him: Quail rearing pens are being built on W.P.A. funds. Birds can thus be secured while young from the state Fish & Game Commission & held until large enough to turn loose. All quail introduced here in the past have been placed on "game reserves," which are privately-owned parcels of land on which no hunting is allowed. Hungarian partridge and wild turkey have been introduced, but haven't proved successful. The turkeys were placed on a rich man's estate, no hunting ever allowed. They had to be removed from this property because they roosted on the rich man's houses' porch; were taken down to Angels Camp, where roosted in a barn until were killed off 1 by 1, as turkey meat was desired by the "sportsmen".

Cooper, 1936   San Andreas, Calaveras Co., Calif.

April 25,

of outside poachers - that is, those from out of the county - and commercial hunters.

The average number of men for each jay shoot is reported to be 18 or 20 per side. The Calif. jays are considered by some residents worse on quail and chickens than the "mountain jays".

April 26,

The attitudes assumed by the several male citizens of the town are diverse in nature. This morning, some were up at dawn ravin' to go. Others, now at 8 o'clock, are lazily wandering forth. Some men who are not to shoot contend: (1.) Why shoot blue jays. (2) There are more profitable things to do than hunt jays. (3) I have work to do. (4) Too old for hunting [young fellows] (5) Too hard work.

2: P.M. Have just returned from trip (reconnaissance) northeast to Mountain Ranch & Sheep Ranch thence south & west to Murphy and Angels Camp. As the result of this trip, the "jay-huntable" territory is now known, in general. For details see following page.

Angels Camp seemed little interested in the jay hunt. The inhabitants there were concerned with a baseball game.

[illegible]

5
6
7
8
San Francisco
Oakland
Berkeley
Sacramento
Stockton
San Jose
Santa Rosa
Vallejo
Modesto
Merced
Santa Cruz
Watsonville
Gilroy
Marysville
Yuba City
Oroville
Colusa
Woodland
Lodi
Napa
Petaluma
Healdsburg
Ukiah
Lakeport
Auburn
Roseville
Placerville
Jackson
Sonora
Tracy
Manteca
Livermore
Hayward
Fairfield
Vacaville
Davis
Dixon
Sausalito
San Rafael
Palo Alto
Santa Clara
Los Gatos
Los Banos
Gustine
Turlock
Oakdale
Mariposa
Chowchilla
Nevada City
Grass Valley
Portola
Truckee
Monterey
Bay
Farallon Islands
Point Reyes
Point Arena
Tahoe
Yosemite National P.
P
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April 26,

I believe this jay hunt concerns, for the most part, the inhabitants of San Andreas.

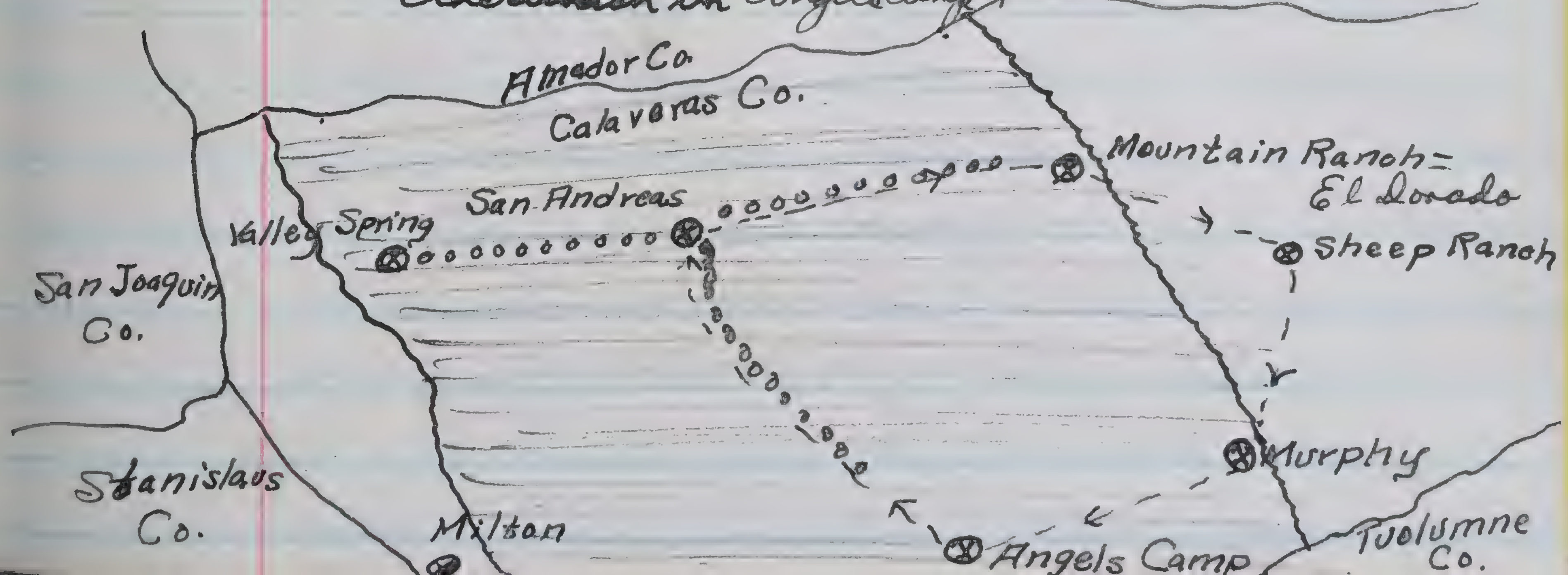
At approximately 3 mi. N of ~~San~~ Murphy, 30 min. was spent at an area in lower Transition – mixed Transition + Upper Sonoran indicators: ~~Q. chrysolepis~~ yellow pine, tanbark oak, and incense cedar mixed with digger pine, Q. wislizenii (?) and hard chaparral.

In the chaparral, I noted: Bewick wren, wren tit, Calif. quail, and spotted towhee. In pines and tanbark oak, these birds were seen: Cassin solitary vireo, black-throated gray warbler, western robin, chipping sparrow, Calif. woodpecker, and steller jay (1 only).

Striped skunk (?) droppings were seen here.

Sketch showing probable area covered by jay shoot. Concentrated shooting along ooooo.

Ate lunch in Angels Camp.



Sen, 1936 San Andreas, Calaveras Co., Calif.

April 26,

The region in Calaveras Co north east of a line running between Murphy and Mountain Ranch (=5 El Dorado on some maps) is too mountainous and vegetation covered to warrant hunting there. Total pontential "jay-huntable" area in County = approximately 500 sq mi. Concentrated hunting: between San Andreas and → Valley Springs, → Angels Camp.

Everyone seemed to enjoy themselves at the barbecue. Plenty of food and bear and a guitar soon had everybody in good "spirits". They birds were counted before food was issued. One person counted, another checked amounts on a chart. Jays = 1 point; hawks = 3 points.

Birds brought in are as follows:

612 jays = 612 ; red-tailed hawk = 1; sharp-shinned hawk = 1; sparrow hawk = 3; horned owl = 1; (Calif.?) shrike = 1. Total = 627 pts.

34 men shot in the contest, about 12 from Angel City and 22 from San Andreas.

Ammunition purchased for shoot in San Andreas = 58 boxes (12-16, 20 ga). Cost of ammunition = $35.00 in San Andreas. $1.00 per sportsman was contributed toward cost of barbecue.

76 birds was highest individual score. 1 bird = lowest score. Mean = approx. 20-30

 San Andreas, Calaveras Co., Calif.

April 26,

21 men in San Andreas purchased 58 boxes of shells for $35.00. If the 12 men from Angels camp purchased in equivalent proportions, 33 boxes would be purchased and for about $20.00 (computation = $19.80). Or a total of 91 boxes purchased for $55.00. How many of these shells were not used is not known

The number of birds killed last year mounts! The owner of the drug store in San Andreas reported 2000 birds killed last year!

The hunter who killed the largest number of birds this year (76) reported he ~~had~~ hunted on "game refuges" [= quail & deer refuge?].

Further evidence that interest in these jay shoots is waning was shown by the fact that approximately as many names of men ~~they~~ who didn't shoot were on the list compiled as those who did shoot.

Some men evidently shot (hunted) all day (5 A.M. to 5 P.M). Others must have confined their hunting time to a few hours.

Birds were brought in to the counting place in burlap sacks, hunting coats, paper bags or any other container at hand.

San Andreas, Calaveras Co., Calif.

April 26,

Conversation with a leader (captain) of ~~one~~ of the sides yielded the following interesting side-lights:
Brush robins (= brown towhee) not brought in, but often? shot, mistaken for jay. Jay hunts have been held here for 40 yrs. Usually held in fall of year when few leaves on trees. Seems to be more jays this year than before. Some jays have migrated now [= paired off + nesting, so less conspicuous?]. ~~Distribution of~~ Poisoned grain distributed for ground squirrels ~~leads to~~ death of more quail than any other thing. As soon as cattle or sheep taken out of a pasture, poisoned barley distributed. This grain even kills deer. - - - A few days ago 3 burlap bags of cats were brought out from Stockton to a place near here. Were to be turned loose. Feral cats are "big" enemies of quail.

A few quail (± 8) were seen in a covey. All others were in pairs. Jays were in flocks or in pairs, approximately equally divided. However, perhaps the jays had paired off and were merely seen ~~in~~ larger groups because they ~~where~~ driven there as I advanced thru forest.

San Andreas, Calaveras Co., Calif.

April 27,

Three censuses were taken today. Two were over the same routes as on Apr. 25, namely, 3 mi. SW San Andreas and at San Andreas. The third was taken on a game refuge where it was believed the "high scoring hunter" had collected.

The results of the censuses yield little conclusive information. No marked reduction in jay population was noted. The area covered by the censuses was too small in relation to the potential "jay-huntable" territory which might have been covered by the hunters. The limit of error is too great. Hunting possibly wasn't done on the areas covered by the censuses.

Since no quail nests were found, an examination of the jay stomachs probably will yield little information on quail predation by the jays - unless on adult quail. Certainly, no young quail are hatched, even if eggs are laid.

Only the insect-eating birds (such as flycatchers, phoebes, and warblers) were noted as still unpaired. For the most part, other birds were seen in pairs. Of course, the insect-eaters could have been paired

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MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality San Andreas

Date April 27, 1956

Observer [illegible]

Time in field 2 hrs. 15 min.

Approximate no. miles 3

Nature of route (zone, fauna, associations) [illegible]

Weather cloudy, mild

SPECIES HOURS ⟶	5:15	5:45	[illegible]	[illegible]	[illegible]	TOTALS
Brown towhee	II	III	IIII		III	13
Calif. purple finch	[illegible]			[illegible]	[illegible]	29
Chipping sparrow	I		II	IIII	IIII I	17
Calif. quail	II		[illegible]	[illegible]	[illegible]	18
Brewer blackbird	I				III	5
Lark sparrow	IIII III	IIII III			III	19
meadowlark	III	I	I		I	6
western kingbird	II					2
Calif. yellow warbler	I	I				2
[illegible]	I	II	[illegible]	[illegible]		17
[illegible]	II					2
Calif. jay		II	IIII	I	I	8
Calif. woodpecker						1
[illegible]			III	II	I	7
[illegible]		I				2
[illegible]		I				2
western [illegible]			I	I		3
[illegible] towhee			III			3
[illegible]			I			1
[illegible]				I		2
western [illegible]			I			1
[illegible]				I		1
[illegible]						
[illegible]				I		1
Unknown	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34
TOTALS (hourly and grand)	46	27	53	35	35	196

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MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality [illegible]

Date [illegible]

Observer E. T. [illegible]

Time in field 2 hours 15 min.

Approximate no. miles [illegible]

Nature of route (zone, fauna, associations) [illegible]

Weather [illegible]

Species	Hours →			[illegible]	[illegible]	Totals
sharp-shinned hawk				1		1
turkey vulture				1		1
Linnet					1	1
TOTALS (hourly and grand)				2	1	3

UNIVERSITY OF CALIFORNIA

MUSEUM OF VERTEBRATE ZOOLOGY CENSUS SHEET

Locality 3 mi. S.W. San Andreas

Date Apr. 27, 1936

Observer E. F. Hooper

Time in field 2 hr.

Approximate no. miles 2

Nature of route (zone, fauna, associations) Upper Sonoran: Digger pine

Weather Cloudy, mild

SPECIES / HOURS →	8:30	9:30	[illegible] 6	10:00-	10:30	TOTALS
[illegible] pigeon	1			1		2
brown towhee	11	111		111		8
Brewer blackbird	11			11		4
chipping sparrow	111	1		1		5
[illegible]	1					1
Linnet or purple finch	1			𝍸		6
western [illegible]	11		1			3
Calif. purple finch	1	111		1111		9
golden crowned sparrow	11	𝍸 111	1111	1111		18
Calif. quail	11	11	11	11		8
ash throated flycatcher	111	1		111		7
Calif. jay	11	𝍸 111	11	11		14
steller jay	11	𝍸 1		111		11
Calif. woodpecker	111	11	11	11		9
titmouse	11	11	1	11		7
Lawrence goldfinch	1					1
sharp-shinned hawk	1					1
red-shafted flicker	1					1
black-throated gray warbler		1111				4
white crowned sparrow		𝍸 1		111		9
[illegible]		1				1
Cooper hawk		1				1
spotted towhee		1				1
unknown	[illegible]	𝍸 11	11	𝍸		25
TOTALS (hourly and grand)	48	54	14	42		158

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MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality 2 mi. SW San Andreas

Date Apr. 27, 1936

Observer E. T. Hooper

Time in field 2 hrs.

Approximate no. miles 2

Nature of route (zone, fauna, associations) Upper Sonoran; Digger pine belt

Weather cloudy, mild

SPECIES HOURS ⟶	8:30	9:00	9:30	10:00		TOTALS
western bluebird		11				2
barn swallow			1	~~1111~~		6
Lewis woodpecker			111			3
swallow			1			1
wren tit			1	11		3
Bewick wren			1	11		3
mourning dove			1			1
bush tit			1111	11		6
evening grosbeak ?	1					1
red-tailed hawk				11		2
warbler				111		3
lark sparrow				1111		4
killdeer				1		1
western tanager ?			1			1
TOTALS (hourly and grand)	1	2	13	21		37

1m-2,'20

UNIVERSITY OF CALIFORNIA

MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality 3 mi. [illegible]

Date April 27, 1926

Observer E. T. [illegible]

Time in field 2 hrs.

Approximate no. miles 2

Nature of route (zone, fauna, associations) Upper Sonoran: Digger pine [illegible]

Weather Cloudy, mild

Species	Hours → [illegible]	[illegible]	12:05	[illegible] –	[illegible]	Totals
chipping sparrow	卌|	卌||||	卌||	||||		22
Brown towhee	|	||	||||	||||		11
Calif. woodpecker	||	||||	||			8
Calif. purple finch	|	|||	[illegible]	||||		12
Steller jay	|	卌	|	|||		10
black-throated gray warbler	||					2
titmouse	|	||||		|		6
barn swallow	||||					4
green-backed goldfinch	||		||	|||		7
slender-billed nuthatch		|				1
hummingbird		|				1
Calif. quail		|||				3
west. flycatcher		|				1
red-tailed hawk		|				1
Calif. jay		|	|	||		4
robin		|	||			3
black phoebe		|	|			2
ash-throated flycatcher	|	|				2
western bluebird			|			1
white-crowned sparrow			||			2
audubon warbler			||			2
Brewer blackbird			卌||			7
golden pileolated warbler			||			2
Calif. yellow warbler			||			2
unknown		卌|	卌	|||		13
TOTALS (hourly and grand)	20	43	45	24		132

1m-2,'20

UNIVERSITY OF CALIFORNIA

MUSEUM OF VERTEBRATE ZOOLOGY **CENSUS SHEET**

Locality 3 mi. S San Andreas, Angel Camp Rd.

Date April 24, 1936

Observer E. I. Hooper

Time in field 2 hrs.

Approximate no. miles 2

Nature of route (zone, fauna, associations) Upper Sonoran [illegible] Digger pine belt.

Weather Cloudy, mild

Species	Hours →			12:30-1:05		Totals
Bush tit				II		2
Bewick wren				I		1
wren-tit				I		1
golden-crowned sparrow				II		2
TOTALS (hourly and grand)				6		[illegible]

1m-2,'20

April 27.

off and the mate not seen. However, in the light of the large number of single birds of this nature observed, this seems unlikely.

Digger ground squirrels were observed, but not in abundance. Not over 15 were seen in the entire area. Three jackrabbits and 1 brush rabbit (or cottontail were noted.

A lark sparrow's nest (with five eggs) was collected from an open grass-covered meadow. The nest was on the ground in the dense ~~stand~~ growth of wild oats that abounds ~~there~~ in the digger pine-black oak belt.

The jays nest collected was secured by Mr. Wiley and donated to us. Three eggs ~~were~~ in it. Another nest was found, but only the three eggs from it were saved.

Wiley also reported the finding of a red-tailed hawk's nest with from 4 to six downy nestlings in it. It was left unmolested.

Left San Andreas at 3 P.M. and arrived in Berkeley at 6:30 P.M. The 627 birds were put in cold storage ~~pending~~ further attention.

Nevada
July - Aug. 1936

Hooper, E. T.
1936

Nevada - July 2 - Aug. 6, 1936

Catalog of specimens
#546 to 691

Hooper, 1936. W side Truckee R., 4900 ft., 1/2 mi. W Verdi, Washoe Co., Nev.

July 2,

to da cook 546 Thamnophis
547 "
548 "
549 Bufo
550 "
551 Rana
552 Coluber
553 Yellow warbler wt. 9.g.

collected by C. H. Engler

1/2 mi. NW Flannigan, 4200 ft., Washoe Co., Nev.

July 4,

♀ 554 Dipodomys m. levipes 277-159-39-14 wt. 67.3 g.
♀ 555 " merriami 224-129-37-13 wt. 30.2 g.
♀ 556 Microdipodops 165-88-25-10 wt. 13.3 g skull only
♂ 557 Perognathus longimembris 136-73-19-7 " 8.3 g.
♀ 558 " " 133-70-19-7 " 6.4 "
♀ 559 " " 134-72-19-6 " 7.8 g.
♀ 560 " " 136-69-18-7 " 9.6 "

3 1/2 mi. NW Flannigan, 4200 ft., Washoe Co., Nev.

July 4,

♀ 561 Dipodomys merriami 232-130-41-13 wt. 41.7 g.
♀ 562 " " 231-135-36-13 " 35.1 g

nos. 561, 562 collected by E. R. Hall

Hooper,
1936

1/2 mi. NW Flannigan, 4200 ft., Washoe Co., Nev.

July 5,

563♂	Neotoma lepida	265-110-29-28	wt. 133g.
564♂	" "	267-110-32-31	wt 121g.
565♂	Peromyscus crinitus	162-80-20-20	" 13.9 "
566♀	" "	163-84-19-19	" 12.5 "
567♂	" "	158-72-19-19	" 14.6 "
568♂	Perognathus longimembris	135-74-19-7	" 8.0 "
569♀	" "	137-76-18-6.5	" 8.6 "
570	Cnemidophorous	-	

N side Sand Pass, 3900 ft., Washoe Co., Nev.

571♂	Microdipodops	166-89-26-8	wt. 12.1g
572♀	"	152-80-26-10	" 14.5g
573♀	"	166-90-26-11	" 13.9g.

nos 571-573 collected by W. C. Russell

2 1/2 mi. E Flannigan, 4250 ft., Washoe Co., Nev.

July 6,

574♂	Neotoma lepida	281-114-29-31	wt. 116.6g.
575♂	" "	262-112-30-29	wt. 103.5g.

nos. 574-575 collected by D. C. Smiley

576♂	Dipodomys microps	267-155-40-13	wt. 53.9g.
577♂	" merriami	240-135-38-13	" 41.9g.
578♀	" "	234-135-37-12	" 43.9g.
579♀	" "	227-125-37-12.5	" 39.4g.

nos. 576-579 collected by D. C. Smiley

Hooper, 1936. Smoke Cr., 3900 ft., 9 mi. E Calif. line, Washoe Co., Nev.

July 7.

5800♂ Eptesicus fuscus 111-46-13-17 tr. 9 wt. 14.4 g.
5819 Neotoma cinerea 354-145-41-36 wt. 268.2 g.
5829 " " 384-151-40-35 wt. 352 g.

July 8,

5830♂ Neotoma cinerea 386-171-43-37 wt. 351.5 g.
5846 Ammospermophilus 204-63-37-14 " 78.4 "
5850♂ Dipodomys microps 289-170-43-14 wt. ?
5860♂ " " 283-160-42-15 wt. 63.6 g.
5879 " ordii 245-136-40-13 " 46.6 "
5889 " " 250-141-40-12 " 53.5 "
5899 " microps 281-170-42-14 " 59.8 "
5909 Microdipodops 150-78-25-11 " 12.5 "
5919 " 152-82-24-11 " 13.2 "
5920♂ " 164-92-24-11 " 12.5 "
5930♂ Reithrodontomys m. 151-75-17-16 " 10.4 "
5940♂ Peromyscus m. 161-71-20-19.5 " 18.9 "
5950♂ " " 151-62-19-18 " 15.4 "

July 9,

5969 Neotoma cinerea 368-158-42-35 wt. 302.7 g.
597 Thamnophis

July 10,

598 Thamnophis
5996 Pipilo maculatum wt. 41.4 g.
6006 Lazuli bunting " 15.1 "

Hooper, 1936

Rock Cr., 5000 ft., Granite Mts., Washoe Co., Nev.

July 11,

601 Coluber

602 Sceloporus

July 12.

603♀ Perognathus parvus 190-95-25-9 (6 emb.) wt. 28.8 g.

604♀ " " 186-99-24-8 " 20.5 "

605♀ " " 173-88-23-9 " 16.5 "

606♂ " " 179-93-23-9 " 20.0 "

Rock Cr., 7000 ft., Granite Mts., Washoe Co., Nev.

July 13

607 Bufo

Rock Cr., 6400 ft., Granite Mts., Washoe Co., Nev.

July 13,

608♂ Callospermophilus 280-98-39-21.5 wt. 118.2 g.

Rock Cr., 6600 ft., Granite Mts., Washoe Co., Nev.

609♂ Eutamias minimus 175-77-28-15 wt. 29.5 g.

Rock Cr., 7350 ft., Granite Mts., Washoe Co., Nev.

610♂ Eutamias minimus 176-79-28-15 wt. 29.3 g.

1 mi. W Hausen, 4650 ft., Washoe Co., Nev.

July 15,

611♀ Neotoma lepida 289-116-29-30 wt. 128.8

Hooper, 1936

12 mi. Cr., 5300 ft. 3/4 mi. E Calif. line, Washoe Co., Nev.

July 17,

612♂ Callospermophilus 274-93-41-20.5 wt. 216.8

1/2 mi. N Vya, 6000 ft., Washoe Co., Nev

July 20, *'

613 Hyla

614♂ Shrike wt. 46.2 g

July 21,

615♀ Microtus mordax 166-55-21-15 wt. 29.0 g.

616♂ " " 163-54-21-14 " 28.5 g.

4 1/2 mi. NE Painted Point, 5800 ft., Washoe Co., Nev.

July 21,

~~617♀ Reithrodontomys m. 136-60.~~

~~618~~ 617♂ Dipodomys ordii 257-142-41.5-12 wt. 58.2 g

~~619~~ 618♀ " " 245-139-42-41.5 " 51.3 g.

~~620~~ 619♂ " " 257-144-41-13 " 58.3 g.

~~621~~ 620♂ " " 255-142-42-12 " 59.5 g.

621♀ Microdipodops 171-92-26-9.5 " 12.5 g.

622♀ " 171-92-26-9 " 13.5 g.

623♂ " 171-93-26-9 " 14.5 g.

624♂ " 170-93-25.5-9 " 14.4 g.

nos. 617-629 collected by E. R. Hall.

625♂ Microdipodops 169-94-26-9 " 14.2 g.

626♂ " 169-92-25-9.5 " 14.9 "

627♀ " 172-95-26.5-9.5 " 16.2 "

628♂ " 167-93-25-9 " 16. "

629♂ " 177-96-25.5-11 " 14.8 "

Hooper,
1936

4½ mi. NE Painted Point, 5800 ft.,
Washoe Co., Nev.

July 21,

630♀ Microdipodops 172-96-25.5-10 wt. 15.0g.
Collected by E. R. Hall

Dry Lake, 36 mi. (by road) E Vya, Humboldt Co., Nev.
July 22,

skull only - pickup
631 Canis latrans

9½ mi. N Sulphur, 4050 ft., Humboldt Co., Nev.
July 25,

632♂ Perognathus longimembris 138-75-18-6 wt. 8.8g.
633♂ Microdipodops 176-98-24-10 wt. 13.5g.
634♀ " 166-93-24-10 wt. 12.8g.
635♂ " 164-93-24-10 wt. 13.0g.
636♀ Dipodomys microps 266-153-42-11.5 wt. 54.2g.
637♂ " " 283-166-43-11 wt. 62.2g.
nos 632-637 collected by D. C. Smiley

3½ mi. SE Sulphur, 5950 ft., Pershing Co.,
Nev.
July 26,

638♀ Bubo virginianus wt. 1137.3 g.
Coll.: E. R. Hall

Hooper, 1936

8 mi. S Sulphur, 4350 ft., Pershing Co., Nev.

July 27,

639♀	Dipodomys microps	273-155-42.5-12 wt. 62.5 g.
640♀	" "	265-145-41-11 " 60.7 g
641♀	" "	277-158-41-12 " 62.1 g.
642♀	" "	287-174-41-11 " 64.2 g

3 mi. S Vernon, 4250 ft., Pershing Co., Nev.

643 Platyrhina

21 mi. W + 2 mi. N Lovelock, 4000 ft., Pershing Co., Nev.

July 28,

644 Cnemidophorus
645 "
646 Crotaphytus
647 "

3 mi. S Vernon, 4250 ft., Pershing Co., Nev.

648♀	Dipodomys microps	269-155-41-11
649♀	" "	280-162-43-13
650♀	" "	262-151-40-12
651♀	" "	272-156-41-11
652♀	" "	271-160-43-11

Collected by E. R. Hall

Hooper, 1936

21 mi. W + 2 mi. N Lovelock, 4000 ft., Pershing Co., Nev.

July 29,

653 Cnemidophorus
654 "
655 "
656 Crotaphytus
657 "
658 "
659 "

El Dorado Can., 6000 ft., Humboldt Range, Pershing Co., Nev.

July 31,

660 ♂ Myotis 92-41-9-13.5 tr. 9 wt. 7.6 g.
Collected by W. C. Russell

El Dorado Can., 7000 ft., Humboldt Range, Pershing Co., Nev.
661 ♀ Callospermophilus 252-89-41-17 wt. 148.4 g.

El Dorado Can., 7500 ft., Humboldt Range, Pershing Co., Nev.
662 Coluber

El Dorado Can., 7800 ft., Humboldt Range, Pershing Co., Nev.
663 ♂ Microtus mordax 178-61-21-13.5 wt. 36.0 g.

El Dorado Can., 8000 ft., Humboldt Range, Pershing Co., Nev.
664 ♂ Callospermophilus 254-96-41-16.5 wt. 145.0 g.

El Dorado Can., 6000 ft., Humboldt Range, Pershing Co., Nev.
665 Coluber

Hooper,
1936.

El Dorado Can., 7800 ft., Humboldt Range, Pershing Co., Nev.

Aug. 1,

666♂	Microtus mordax	162-54-21-13	wt. 28.0 g.
667♀	" "	166-55-21-?	" 27.4 g.
668♂	Peromyscus maniculatus	155-65-22-16	" 19.4 g.
669♀	" "	167-69 21-16	" 21.0 g.
670♂	Eutamias minimus	178-82-30-14	" 35.7 g.

Aug. 2,

W base Granite Peak, East Range, Pershing Co., Nev.

671	Crotaphytus		

S base Granite Peak, East Range, Pershing Co., Nev.

672♂	Ammospermophilus	199-62-39-?	
673♂	Eutamias minimus	191-90-29-14	
674	Uta		
675	Uta		

Aug. 3,

S side Granite Peak, East Range, Pershing Co., Nev.

676♂	Reithrodontomys	134-66-(15)-13	wt. 8.8 g.
677♂	"	146-69-13-15	" 12.0 "
678♂	Perognathus parvus	175-94-23-7	" 16.3 "
679♀	Neotoma lepida	270-115-31-31.5	" 103.2 "
680♂	" "	315-139-33-31	" 168.3 "
681♀	" "	293-132-31-31	" 113.2
682	Uta		
683	"		
684	Sceloporus		

Hooper, 1936

1 mi. E Oreana, 4300 ft., Pershing Co., Nev.

Aug. 4,

685 Cnemidophorus

3 mi. S Mt. Rose, 8500 ft., Washoe Co., Nev.

Aug. 5,

686♂ Ochotona p. 160-13 -30-22 wt. 89.4 g.

687♀ Marmota f. 546-156-70-27

Skel. only 688♂ Carpodacus cassini wt. 29.2 g.

Skel. only 689♂ Nighthawk (Chordeiles virginianus?) wt. 59 g.

Skel. only 690♀ " " " " 64 g.

Aug. 6,

691 Rana

Hooper, E. T.
1936

Nevada – July 2 – Aug. 6, 1936
General account

Hooper,
1936

W side Truckee R., 4900 ft., 1/2 mi. W Verdi
Washoe Co., Nev.

~~July~~ 2,

Left Berkeley yesterday at 9 A.M.
to Nevada in company with E. R. Hall, C. H. Engler,
s cook — W. C. Russell and D. C. Smiley. "Trucks" used
M. V. Z.'s Reo and E. R. H.'s Ford. Drove
via. Vallejo, Sacramento, Auburn, Truckee
to this, our first camp, on the Nevada
State Fish Hatchery property, about 100
yds. south of the hatchery buildings and
on the W side Truckee R., 4900 ft., 1/2 mi
W Verdi, Washoe Co. Nevada. The riparian
association in the immediate vicinity of camp
includes the following "dominant" plants:
cottonwood, willow, and wild rose. Grass
covers the substrate where the soil is not
too rocky or too sandy. Immediately
adjoining (to the west) the riparian association is a drier
sagebrush association. Here Artemesia
tridentata is "dominant" but is mixed with
an occasional Pinus ponderosa, Ribes
sp?, Cercocarpus sp?, and Sambuca velutina?.

Amphibians + reptiles no. 546-551 were all
collected in the immediate vicinity of fish ponds on
marshy ground. The Coluber, no. 552, was
found under a clump of Artemesia.

Hooper, 1936.

1/2 mi. NW Flannigan, 4200 ft., Washoe Co., Nev.

July 3,

Moved camp to the above locality. Left old camp on Truckee R. at 8:15 A.M., drove to Reno where went to P.O., & restocked with groceries; left Reno at 10:45, drove north along Pyramid Lake, following the S.P. railroad route (to Susanville) to this locality.

Set out 10 mouse traps, 10 paces apart, in Artemesia & on course sand.

July 4.

Caught in traps: 4 Perognathus longimembris, 1 Microdipodops, 1 Dipodomys merriami, & 1 Dipodomys microps.

Set out 15 mouse traps and 2 rat traps along rocky outcroppings and adjoining rocky soil.

July 5.

Took in traps: 2 Neotoma lepida, 2 Perognathus longimembris, & 3 Peromyscus crinitus. All were put up into study skins.

July 7,

Moved camp yesterday to Smoke Creek, 3900 ft., 9 mi. east of Calif. state line, Washoe Co., Nev. This camp is situated, more specifically, about 200 ft. from Smoke Cr. We are occupying an old deserted ranch house

Hooper, 1936

Smoke Cr., 3900 ft., 9 mi. E Calif. line, Washoe Co., Nev.

July 7,

belonging to a Mr. Jenkins (?). Along the creek bottomlands, cottonwood, willow and other riparian indicators are found. Adjoining the stream association (with the occasional ~~s~~ marshy lands and small pools) ~~is~~ found ~~an~~ Artemesia - Chrysothamnus association. In this deserted house were found abundant signs of wood rats. Droppings abound on the floors, on tables, and rafters. One nest was found in an old bureau. The bottom section of the bureau was full of the following materials: cottonwood leaves, cow or horse bones, pieces of wood, a coyote skull, and other miscellaneous bones. No tunnels or cavities could be found in this mass of material. It seemed to be merely an "accumulation" alone - resulting from and probably satisfying partially the instinct to collect or accumulate "odd" articles. Perhaps the cottonwood leaves and stems would be used later on (winter?) for food. In the drawer just above this accumulation was the nest proper. It measured: 8 in. from outer rim to outer rim; 4½ ins from inside rim to rim; ~~and~~ about 4 in. high. It was free from fecal matter and probably

Hooper. 1936

Smoke Cr., 3900 ft., 9 mi. E. Calif. line
Washoe Co., Nev.

July 7,

had not been used for several months. Two rat traps set in the "kitchen" near our food boxes yielded 2 Neotoma cinerea. Bats were noted last evening. 1 Eptesicus fuscus was shot.

July 8,

Set out 50 mouse traps, 10 paces apart, on fine sandy areas and on course sand areas about ½ mi. N of camp. Sarcobates was the most conspicuous plant in the area trapped. Found in traps this morning: 1 Ammospermophilus, 3 Dipodomys microps, 2 D. ordii, 3 Microdipodops, 3 Peromyscus maniculatus, 1 Reithrodontomys megalotis, 1 Perognathus parvus. Set 2 rat traps in the ranch house where we camp. Caught this morning 1 Neotoma cinerea.

July 9,

Took 1 more Neotoma cinerea from 1 of 2 rat traps set in this old cabin. These rats are exceedingly abundant here. They inhabit this house, outlying outhouses, old cottonwood stumps, rock piles, and piles of debris (which, for the most part, have been formed during high water periods of the creek and were not, probably, built by the rats). At night they can be heard climbing about in trees and running about on the dry

Hooper, 1936

Smoke Cr., 3900 ft., 7 mi. E Calif line, Washoe Co., Nev.

July 9,

litter under the cottonwoods, along the creek bottomlands. Last night Russell shot one out of a cottonwood near the house. I have heard them at night in these trees at least 15 ft. above the ground and probably higher — I could not definitely locate these latter, higher ones. Sign is exceedingly abundant along the creek. As the result of a light shower last night there is now enough water in the creek to ~~make~~ connect several of the pools (down almost as far as the automobile bridge near the ranch house); they were separated by dry land before the rain. It is now cloudy and overcast (4:30 P.M.), perhaps promising more showers tonight. The strong wind which has blown daily after approximately 9 A.M. (until 7 P.M) has been conspicuously absent today.

Collected a garter snake in the grass beside one of the pools along the bed of Smoke Cr.

July 10,

Collected a garter snake near the same place where the one was collected yesterday. Shot a spotted towhee ~~from~~ in a willow thicket near the creek bottom. Collected a lazuli bunting from a bush near a flat graveled area, 100 yds.

Hooper, 1936

Smoke Cr., 3900 ft., Granite Mts., Washoe Co., Nev.

July 10,

from the creek.

Rock Cr., 3900 ft., 9 mi. E Calif. line, Washoe Co., Nev.

July 11,

Moved camp yesterday to our present site on Rock Creek. Left Smoke Cr. at 3:40 P.M., drove via. Round Hole to Gerlach. Secured food, water & gas there; left at about 6 P.M., drove north along the east side of the Granite Mts. to Rock Cr., then up (westward) Rock Cr. to our present camp. Immediate area about camp - which is beside the Creek - includes the following plants: along the creek = alder, aspen, wild rose, and birch; on the surrounding north slopes = Artemesia albus ? & dry grass; on South slope = Artemesia tridentata, A. albus? and an occasional Arctostaphylus and wild rose (in shaded "draws"). This morning I walked to the top of and along the ridge to the south of camp. Reached an altitude about 500 ft. higher than camp. Saw wood rat sign amoung rocky outcrops. Shot a yellow-bellied racer in a rocky area near top of ridge. Saw meadow lark

Hooper, 1936

Rock Cr., 5000 ft., Granite Mts., Washoe Co., Nev.

July 11,

green-tailed towhee, mourning dove, yellow warbler. Saw no chipmunks, though they should be here - the country looks good. I could see no conifers - juniper or piñon pines - up to an approx. altitude of 7000 ft.

July 12,

Set out 30 mouse traps last night along the edge of the creek for Sorex palustris and Microtus mordax. Part (about 1/3) of the area trapped was covered with aspen, birch and alder, under which was a sparse growth of grass. From the other 2/3 of this area the trees had been burned off; the Artemesia was, there, almost to the water's edge - having advanced into the burned area. In addition, 10 traps were set about 100 yds. from the stream on a south-facing slope and under Artemesia clumps and around rock piles (talus).

Caught this morning: 8 Perognathus parvus and 1 Peromyscus maniculatus. Three of the pocket mice were caught at the edge of the water (not over 5 in. away) in the burned-over area. The other pocket mice were trapped on the hillside under Artemesia, the Peromyscus in a talus. Four specimens (all Perognathus) were saved.

Hooper, 1936

Rock Cr., 5000 ft., Granite Mts., Washoe Co., Nev.

July 12.

The remainder ~~were~~, all in juvenile pelage, ~~and~~ were discarded.

1 mi. W Hausen, 4650 ft., Washoe Co., Nev.

July 15.

Went deer + squirrel hunting with Russell during the morning of July 13. Followed Rock Cr. up to near the head-waters of the creek. Several small springs + tributaries feed the stream. At each one of these water sources alder, birch, and aspen grow in thick stands. These trees also occur all along the main creek. At about 5300 ft. we saw ± 8 jays of the California jay general coloration. Shot one bird (jay) but could not find it in the dense brush. Shot a Callospermophilus from rocks along the creek at approximate altitude 6400 ft. At 7000 ft., collected a Bufo in marshy ground in an aspen thicket. In ~~this~~ same thicket we jumped a deer but could not get a good shot. From boulders near the creek at 6600, collected a Eutamias minimus. At the altitude 7425 ft. there is a large meadow about 3/4 mi. long and 1/4 mi. wide. It had been

Hooper, 1936.

July 15,

"sheeped" but still had a good stand (about 1 ft. ht.) of grass over it. Ground squirrels were abundant on the meadow. Their "bark" or call resembles that of Citellus beldingi of the Sierra Nevada. In the Artemesia on the slopes surrounding the meadow chipmunks could be heard "chipping" and could be seen occasionally. From about 6200 ft. on up to the meadow, Callospermophilus, Eutamias minimus were found; seeming to increase in abundance as altitude increased (along the creek). Citellus were observed at about 6200 ft. Shot two squirrels (Citellus) on the meadow. Returned toward camp by same route to about 6400 ft. level; then turned westward over dry ridges to cover other aspen thickets. Jumped two fawns and one doe(?). Saw the doe just as she was disappearing over a ridge about 150 yds. away. Noted that the rump region was markedly white. Deer sign was abundant in each alder thicket searched. Russell set two gopher sets at about 6000 ft. Left them for 4 hours but caught no gophers.

Hooper, 1936

1 mi. W Hausen, 4650 ft., Washoe Co., Nev.

July 15.

Moved camp yesterday to the above locality. Stopped in Gerlach for about 20 min. for supplies. Drove around to the west side of Granite Mts. to the "Silver Bell" mine. Smiley found one Corynorhinus in a mine tunnel. Junipers extend to or near the summit of the mountains on this (western side). On the eastern side no conifers were noted, even at a 7425 ft. level. Drove on down the road toward Eagleville, stopped for night at 15 mi. NNW Deep Hole. The next morning (July 14) en route to Hausen at 20 mi. NNW Deep Hole, 5600 ft., I shot a red-tailed hawk. Arrived at a deserted school house 1 mi. W Hausen where made camp. Shot a Neotoma lepida this morning from a wood pile. Discovered later it nested there.

Hooper, 1936

12 Mi. Cr., 5300 ft., ½ mi. E Calif. line, Washoe Co., Nev.

July 17,

Spent most of July 15 packing specimens and looking for gopher workings. Went first to a ranch about 2 mi. N Hausen. An artesian well & spring here supplied water to grass and small patches of alfalfa. Could find no gophers workings here but did collect some fish (Catostomus or Pantosteus ?) from the streams leading from the well & spring. Next we (Hall & I) drove about 1½ mi. S of our camp (1 mi. W Hausen) to an old sheep ranch. No gophers were found to be working here. Drove back to Duck Valley & made one set in a hay field. ~~Shot a woodrat from~~ On July 16 packed up all equipment, drove into Calif. at the inspection station near Hausen. Drove to Cedarville where re-stocked with food & gas and ate lunch. Left Cedarville at about 1:30 drove north through Fort Bidwell past the Oregon line to 12 Mile Creek, then ½ mi. E down the creek to camp. About 1 mi. of this creek is within Nevada. We are now within that mile.

Went hunting this morning. Followed the creek eastward about ½ mi. Shot 2 Callospermophilus but lost one in the lava talus.

Hooper,
1936.

12 Mi. Cr., 5300 ft., 1/2 mi. E Calif. line,
Washoe Co., Nev.

July 17,

One half a mile (approx.) from camp, "down creek" I found a meadow about 200 yds. long. Water from the creek is diverted out over the meadow. Near the western edge of this meadow, about 60 ft. from rocky slopes a wood chuck was found. It was lying beside a small ditch containing water and was so well concealed by grass that I was within 15 ft. of him before I saw him. I shot both the 16 ga. (8 ch.) and 410 ga. (12 ch.) but the animal succeeded in reaching its home in a talus slope. Shot a sage hen in the Artemisia near the creek. Saw a young rattlesnake.

1/2 mi. N Vya, 6000 ft., Washoe Co., Nev.

July 20,

Moved camp yesterday. Drove back thru Fort Bidwell to Cedarville where purchased groceries + lunch. Drove eastward from Cedarville across Middle Lake into Nevada to Vya a "town" of about 4 houses. We are now camped in a deserted house about 1/2 mi. N Vya. Artemesia tridentata is the dominant plant, within a mile radius from camp. A small spring wells up about

Hooper, 1936.

½ mi. N Vya, 6000 ft., Washoe Co., Nev.

July 20,

50 ft. from the camp house. Collected here among grass on marshy ground: 1 Hyla. Shot a Eutamias from a juniper; since the skull was badly crushed, it was not saved. Collected a shrike from a juniper near the house.

July 21,

Set out 21 mouse traps in "native grass" and at bases of Artemesia bushes. Microtus runways were faintly discernable in the grassy areas near the spring. Area trapped: all within 100 ft. radius from ranch house where are camped.
Caught this morning: 2 Microtus montax and 12 Peromyscus maniculatus.

Quinn R. Crossing, 4100 ft., Humboldt Co., Nev.

Yesterday afternoon left camp at Vya. Drove eastward by a Piute + Shoshone Indian Reservation and northward to Denio, then south to Quinn River Crossing - a ranch with two houses. For route, see map in notebook of W. C. Russell. Picked up a coyote skull near a dry lake 26 mi. (by road) east of Vya. Spent night near the Indian reservation. Drove here today.

Hooper, 1936

Sulphur, 4042 ft., Humboldt Co., Nev.

July 25,

For 3½ hrs. yesterday morning drove south to Sulphur, Nev. This "town" is composed of about 15 small houses + shacks – inhabited – if they are – by workers at the sulphur mine near here and by section hands on the Western Pacific Railroad which runs thru here. One store, a depot + an old "hotel" – sans tenants before we arrived. For $1.00 per day we are renting three rooms in the "hotel". The town lies near the area termed on the U.S.G.S. Lovelock sheet "Black Rock Desert". Sand here of course, non-driftable type. Plants noted: Sarcobates, Atroplex + Artemisia sp?

21 mi. W + 2 mi. N Lovelock, 4000 ft., Pershing Co., Nev.

July 28,

Moved camp yesterday. Drove southward to 3 mi. S Vernon, 4250 ft. Vernon is a mining settlement of about 7 houses – some of which are now inhabited. Collected a horned toad on rocky soil under a small bush. Spent night here, drove to Lovelock this morning to get onto another road leading to an adobe lake, about 21 mi. W and 2 mi. N Lovelock. We tried

Hooper, 1936

21mi. W + 2mi. N Lovelock, 4000ft., Pershing Co., Nev.

July 28,

to reach this lake by a road from Vernon, but didn't succeed — road obscured & surface of ground too sandy. We are now camped about ½ mi. E of the white, adobe part of the dry lake — east side of the lake. Sand dunes extend at least a mile (can't see farther!) on each side of camp. These dunes are not over ¼ mi. in width and are met on the west side by the adobe areas and on the east by hard graveled ground — which extends, in a gradual rise, to the mountains eastward. Collected 2 Crotaphytus, +1 Cnemidophorus along the sand dunes. Shot 2 more Cnemidophorus from under bushes (as, indeed, all were — at 1 P.M.) growing on rocky ground, however only 1 could be saved.

July 29

Shot 3 Cnemidophorus and 4 Crotaphytus on the sand dunes. All were driven out from under the shade of bushes.

Hooper, 1936

El Dorado Can, 6000ft., Humboldt Range, Pershing Co., Nev.

July 30,

Moved camp yesterday. Drove back to Lovelock, re-stocked with groceries, then motored north 20 mi. (approx.) along main hwy. to Winnemucca; turned eastward up El Dorado Canyon. Are now camped at about 6000 ft. level. near Ruby mine. Walls of canyon rise steeply on each side of canyon bottom about 100 ft. wide. Artemesia tridentata & Juniperus occur on the canyon walls. A small creek (± 20 gal. per. min. at our camp) now flowing. The volume increases as one progresses up the stream - at least to 7000 ft. level. It disappears completely at about 5000 ft. level. Cottonwoods, alder, elm (?), and wild rose occur in abundance along the sides of stream bed densely shading the canyon bottom. Noted one 7 in. eastern brook trout and many e.b. + rainbow fingerlings in the several 2" deep pools which are found near camp. The large trout was not completely covered by water; it could not get out of the pool. Dr. Hall reports they were planted here this spring. Said informant of this word also reported that sheepherders had caught most of the trout with

July 30,

hands! Sceloporus noted along stream, on trunks of trees, + in leaf litter. Cnemidophorus seen under bushes in leaf litter. Striped racer caught near stream; had Sceloporus in mouth. Saw yellow-bellied racer among rocks + Artemesia on south-facing slope 100 ft. from stream. Saw bush-tits in alder thickets, cottonwoods + in Artemesia clumps near these other plants. Heard jays (of Calif. jay type), robins, rock wrens, canyon wrens.

July 31,

Went hunting this morning - 6:30 A.M. - 11:30 A.M. Followed creek bottomlands up to approx. 8200 ft. alt. Noted + collected first Callospermophilus at about 7000 ft. Next one was seen at approx. 7800 ft. From here to about 8200 ft. - on a horizontal distance of ± 3/4 mi., I noted 7 more. Chipmunks ranged - by observation records - from ± 7800 - ? None were noted below ± 7800 ft. Saw ground squirrel (?) burrows - some closed. Mr. Smith, who runs a cyanide gold mine in the canyon, reported seeing a mountain lion at about 8000 ft. I saw 'bushy-tailed (?) woodrat nests + sign in an old

Hooper, 1936

El Dorado Can., 6000 ft., Humboldt Range, Pershing Co., Nev.

July 31,

barn. Frightened white-footed mice (*Peromyscus maniculatus*) from the hutches composed of dried sticks, bones & varied "oddities". *Sceloporus* were abundant around rock heaps & outhouses. Saw one *Cnemidophorus* under an *Artemesia* bush at about 7700 ft. Mr. Smith presented us with a small striped racer and a rattlesnake - both collected at about 7500 ft. The rattler was so mangled it was discarded. Collected 2 "Callos" at altitudes as given in catalogue. *Microtus mordax* were seen at least 3 times running from bush to bush. Shot one specimen. Set two gopher sets, 2 rat traps, + 27 mouse traps this evening. The gopher diggings were on an alluvial fan composed of coarse gravel - little soil. Shot another *M. mordax* while setting traps. Shot a yellow-bellied racer - one of two which was in a "tangle" over the "ownership" of a mouse carcass.

Aug. 1,

Found in traps this A.M.: 17 *Peromyscus maniculatus* + 2 *Microtus mordax*. Shot a *Eutamias*; was running toward a

Hooper, 1936

El Dorado Can., 6000 ft., Humboldt Range, Pershing Co., Nev.

Aug. 1,

juniper from an *Artemesia* clump. Set 1 more gopher set. Put up 2 *Peromyscus*, 2 *Microtus* + the chipmunk.

S base Granite Peak, East Range, Pershing Co., Nev.

Aug. 2,

Moved camp yesterday to the above locality. Drove south to Oreana, turned east over a low pass into Buena Vista Valley. Spent last night near the dry lake in floor of valley. Drove up here this A.M. Are now camped in a clump or thicket of buffalo brush + wildrose. A small stream (± 4 gal. per min.) flows thru here. Slopes away from stream dominated by *Artemesia tridentata*; an occasional *Sarcobates* is present. The slopes of Granite Peak are comparatively thickly covered (for western Nevada) with junipers. Shot a *Crotaphytus* on the flat near the dry lake. Noted antelope squirrels there. Shot one of these squirrels here at camp.

Aug. 3

Went up one of the canyons toward the summit of Granite Peak. Slopes there densely covered with junipers + pinon pines. A small

Hooper, 1936

S base Granite Peak, East Range, Pershing Co, Nev.

Aug. 3.

creek flows at the bottom of this canyon; mint, columbine and other perennials occur under the dense willow and buffalo bush clumps along the stream. This small meadow type of habitat looked to be suitable for Zapus & Microtus mordax. Saw deer tracks in the marshy ground here. Woodhouse jay & ~~red~~ gray-titmouse were noted. Set 10 mouse traps along the creek and 40 mouse and 3 rat traps on an east-facing slope in rocks & beneath junipers & pinon. Shot 1 Eutamias minimus and 2 Uta's yesterday - when setting traps.

Caught this morning: Along creek: 2 Peromyscus maniculatus, 3 Reithrodontomys megalotis; on hill: 3 Peromyscus maniculatus, 1 Reithrodontomys megalotis, 1 Perognathus parvus, 3 Neotoma lepida. All but about 10 of the traps were sprung - probably by wood rats, since sign was abundant. They nested & lived in rock piles for the most part. Shot 3 more Uta and a Sceloporus. Hunted for "Caldos", ~~and~~ "large" chipmunks, (Eutamias quadrivittatus) and gopher workings but found none of any of these.

Hooper, 1936.

3 mi. S Mt. Rose, 8500 ft., Washoe Co., Nev.

Aug. 5,

Moved camp the afternoon of Aug. 3. Drove back across the valley to Fanning where spent the night. Broke a spring on the Reo, so could not drive down valley to farms — looking for gophers — as planned. Yesterday, Aug. 4, drove back across the West Humboldt Range to Oreana (& main highway). Shot a Cnemidophorus on the sand among Artemesia tridentata, approx. 1 mi. E of Oreana. From Oreana motored south to Lovelock, where had spring fixed, & secured gas, water, groceries & mail, & lunch. Left Lovelock at about 1 P.M., drove thru Wadsworth & Sparks to Reno; south along highway toward Carson City to first road to right which lead to Mt. Rose. Are now camped about 3 mi. S of the summit of this peak. Zone here mostly Canadian. Recognize Pinus contorta, Picea engelmanni, Abies concolor, Abies magnifica, Pinus monticola and aspen, and manganita. Weather here cool; especially in contrast to that recently experienced in desert. Shower last night (with hail) and this noon. Hunted

Hooper, 1936

3 mi. S Mt. Rose, 8500 ft., Washoe Co., Nev.

Aug. 5.

this morning for coneys. Found a rock slide about 1/4 mi. west and 500 ft. higher than the meadow (bordering a branch of Incline Cr.) on which we are now camped. Shot 1 Ochotona and 1 Marmota. Marmots are comparatively abundant in the rock slides. Saw 2 in adult pelage and 3 in juvenile pelage. Callospermophilus, Belding squirrels, Eutamias quadrivittatus frater, E. amoenus are abundant. Noted mountain chickadee, junco, Cassin finch (shot 1 - was being courted by a female - later saw ♂ mounting a ♀) red-shafted flicker, Clark nutcracker, crested jay, olive-sided flycatcher (heard only), ash-throated? flycatcher (heard only), wood peewee, turkey vulture, robin, chipping sparrow, white-crowned sparrow, and mountain bluebird.

Berkeley, Alameda Co., Calif.

Left camp on Incline Cr. at about 7:30 A.M. Drove around the north end of Lake Tahoe through Tahoe City then down Truckee River Canyon to Auburn-Truckee Highway. Followed this highway thru Auburn & Sacramento to Davis where we lunched. Reached M.V.Z. at 3:30 P.M.

Hooper E.T.
Alameda, Contra Costa, Santa Clara Cos. etc. Calif.
Nos. 692 - 918
Dec. 15, 1936 - July 12, 1938

Hooper, E. T.
1936 – 1938

San Francisco Bay region counties
Dec. 15, 1936 – July 12, 1938

Catalog of specimens
#692 – 918

Hooper, 1936

Berkeley, Alameda Co., Calif.

Dec. 15,

692♂ Microtus c. paludicola (163)-(29)-22-17

The above specimen was trapped on Oct. 25, 1936, at "1 mi. E. mouth San Pablo Cr., salt marshes, Contra Costa Co. It was kept ~~until~~ in captivity until Dec. 15, when it was killed.

Hooper, 1937

Salt marshes, 1 mi. E mouth San Pablo Cr., Contra Costa Co., Calif.

Jan. 13,

693♂	Reithrodontomys raviventris	145-73-13	wt. 13.3 g.
694♂	"	139-67-17	" 10.2 "
695♂	"	125-59-16	" 9.0 "
696♂	"	119-53-16	" 9.3 "
697♂	"	131-62-16	" 10.0 "
698♂	Microtus californicus	181-52-21	" 53.2 "
699♂	" "	182-48-23	" 52.3 "
700♂	" "	168-46-20	" 51.2 g.
701♀	" "	151-40-20	" 39.6 "
702♀	Sorex vagrans	97-34-11	" 4.0 "

Bay Farm Island, Alameda Co., Calif.

Jan. 16,

703♂	Reithrodontomys raviventris	146-73-18-14	11.7 g.
704♂	" "	137-67-17-14	12.9.
705♀	" "	132-63-17-14	10.2 g.

Hooper, 1937

Berkeley, Alameda Co., Calif.

Jan. 21,

7060 *Microtus californicus* 155-41-20-16

This specimen was collected in *Salicornia* marshes ½ mi. S Giant, Contra Costa Co., Calif. (Giant is about 2½ mi. N of San Pablo.) It was collected on Jan. 17, and kept in captivity until Jan. 21.

Feb. 1,

5158 alcoholic 707 *Peromyscus m.* juv.
alcoholic 708 " " "

The above two specimens were collected by Mr. V. Mowbray on Jan. 31, 1937, at 2 mi. SW Ross, Marin Co. They were found in midday under an oak tree on top of the ground and were still alive when brought to M.V.Z. They are preserved "in fluid."

Feb. 5,

709 *Diadophis*

Found on sidewalk this morning almost dead, probably as a result of crushing by some object. A heavy rain last night may have driven the animal out of its place of retreat. Locality: Oxford Ave. + Virginia St., Berkeley.

Hooper, 1937

Salt marshes, Giant, Contra Costa Co., Calif.

Feb. 15,

710♂	Reithrodontomys m.	134-68-16-13	wt. 8.6g.
711♀	" "	135-68-17-13	" 8.6 "
712♂	" "	141-71-16-13.5	" 9.5 "
713♀	Microtus c.	136-38-20-15	" 24.0 "
714♂	" "	156-47-21-16	" 30.5g.
715♀	" "	156-49-20-17	" 34.3g.

Feb. 27,

S. side Grizzly Peak, 1600 ft., Berkeley, Alameda Co., Calif.

716♀ Peromyscus californicus 231-119-27-23
Collected by W. C. Russell

S slope Strawberry Canyon, 1100 ft., Alameda Co., Calif.

~~717♂~~ Mar. 6,

717♂ Peromyscus truei 193-97-23-20
Collected by W. C. Russell

1 mi. S Antioch, 100 ft., Contra Costa Co. Calif.

Mar. 7,

718♂	Peromyscus maniculatus	158-67-20-15	wt. 18.5g.
719♂	" "	144-58-18-14	" 17.1g.
720♀	" "	4 embs. 17 mm. 148-58-20-16	" 22.6g.
721♀	" "	151-65-19-16	" 15.3g.
722♀	" "	4 embs. 15 mm. 143-56-18-15	" 23.2g.

Hooper, 1937

Berkeley, Alameda Co., Calif.

April 7,

7230♂ Dipodomys merriami 246-139-39-10

The above specimen was collected on April 5, 1937, by D. H. Johnson at 22 mi. N Adelanto, San Bernardino Co., Calif. It died on April 7 in captivity.

Pinole, Contra Costa Co., Calif.

April 25,

7240♀ Antrozous pallidus 120-39-14-28-t.14

7250♂ " " 117-37-14-28-t.14

7260♂ Tadarida mexicana 102-35-11-13-t.4

Melrose Marsh, 1½ mi. E Bay Farm Island, Alameda Co., Calif.

April 30,

7270♀ Reithrodontomys raviventris 136-64-16-13

7280♂ " " 145-70-17-13

The above 2 specimens were collected in runways in Salicornia near a slough.

near Taft, Kern Co., Calif.

7290♂ Ammospermophilus l. nelsoni 194-61-38

7300♀ " " " 194-65-36

The above 2 specimens were brought to me by Miss. Muriel Reaves. They were collected near Taft sometime prior to May 10, 1937. Died May 16.

Hooper, 1937

Berkeley, Alameda Co., Calif.

May 16, 1937

7310♂ Reithrodontomys raviventris 135-65-17-14
The above specimen was collected near Bay Farm Island, Alameda Co., on Jan. 16, 1937. It died May 16, 1937.

St. Vincent, saltmarsh, 5 mi. N San Rafael, Marin Co., Calif.

May 25,

7320♂ Reithrodontomys halicoetes 142-68-17-12

1 mi. E San Rafael, saltmarsh, Marin Co., Calif.

May 25,

733♀	Microtus californicus	166-48-21-15
734♀	" "	155-42-20-13
735♀	" "	173-49-21-14
736♀	" "	150-~~52~~ 35-21-13
737♂	" "	191-52-22-15
738♂	" "	163-42-23-14
739♂	" "	160-45-23-14
740♂	Mus musculus	155-78-19-13

June 14,

Berkeley, Alameda Co., Calif.

741♂ Epidonax difficilis
Found almost dead in north Berkeley (1827 San Juan Ave.) by Miss. Barbara Bacon. Died the same day found—June 11, 1937.

Hooper, 1937

Berkeley, Alameda Co., Calif

Sept. 22,

742♂ Reithrodontomys megalotis 120-61-16-12

The above specimen was collected by H. S. Fitch in Arroyo Mocho, 1600 ft., Alameda Co., on Sept. 19, 1937. It was taken under a rock or log in grass; Coulter Pines, blue and valley oak about.

Nov. 13,

743♂ Perognathus californicus 195-102-25-12
744♂ Peromyscus truei 200-97-23-21
745♀ " " 196-99-23-22

The above specimens (3) were taken by L. W. Arnold in Hamilton Gulch, Berkeley, Alameda County, California and were kept in captivity until killed on Nov. 13. 743 and 745 were collected on Sept. 12; 744 on Sept. 11.

Nov. 15,

746♂ Citellus 289-73-45-18

The above specimen was taken at Double Springs, 16 mi. NE Dickey, Custer Co., Idaho on July 22, 1936. It was in a weakened condition, perhaps dormant, a week or more prior to Nov. 15, 1937, when it was killed. Collected by W. B. Davis.

1938

Isabel Creek, 2200 ft., Santa Clara County, California.

Jan. 5,

♀ 747	Peromyscus	californicus	245-130-27-27
♂ 748	"	"	240-122-26-24
♂ 749	"	"	251-134-28-27
♀ 750	"	"	225-124-26-24
♀ 751	"	"	217-115-27-24
♂ 752	"	truei	192-90-25-21
♂ 753	"	"	193-97-24-22
♀ 754	"	"	208-103-23-23
♂ 755	"	"	199-99-23-22
♀ 756	"	"	200-96-24-22
♂ 757	"	"	195-98-24-22
♀ 758	"	"	199-96-24-22
♀ 759	"	"	197-94-23-24
♀ 760	"	"	190-87-23-21
♀ 761	"	"	195-91-23-23

Salt marshes, Giant, Contra Costa Co., Calif.

Feb 26,

♂ 762 Bonaparte Gull

vicinity of Angels Camp, Calaveras Co., Calif.

Jan. 31,

? 763 Cyanocitta

salt marsh, Manzanita, Richardson Bay, Marin Co., Calif

764 ♀	Microtus c.	170-45-21-15 (3emb., 20mm.)
765 ♂	Reithrodontomys	150-78-17-13
766 ♂	"	140-70-16-13
767 ♀	~~Peromyscus sn.~~	175-79-22-17

Hooper, 1938

salt marsh, 1 mi. ESE Corte Madera, Marin Co., Calif

Mar. 6,

768♀ Microtus c. 146-40-21-14

769♂ Reithrodontomys 145-73-17-14

770♂ " (135)-(60)-16-11 ~~80-7~~-15-

~~77~~ salt marsh, 1 mi. E.S.E Corte Madera, Marin Co., Calif.

771♂ Reithrodontomys 143-70-17-14

772♂ Microtus 175-48-21-15

773♀ " 154-41-21-15

774♂ " 176-48-22-16

~~775~~ Berkeley, Alameda Co., Calif.

Mar. 9,

775♀ Dipodomys nitratoides 234-137-35-11

776♂ " " (185)-(85)-33-12

The above 2 specimens were collected by Mr. Don Tappe on Feb. 24, 1938, at ~~the~~ locality 7 mi. SE Tipton, Tulare Co., Calif. They were kept in captivity until they died on Mar. 7.

April 3,

777♀ Neotoma f. monochroura 397-190-39-29

~~778♂ Peromyscus m. rubidus 175-80-20-15~~ (not saved)

The above ~~2~~ specimen~~s~~ were collected by Frank Clark on March 31, 1938, at the locality 7½ mi. W Laytonville, Mendocino Co., Calif. They were brought to the Museum by Tom Rogers.

Hooper, 1938

Berkeley, Alameda Co., Calif.

April 2,

778♂ Dipodomys ingens 355-203-48-15
779♀ " " 337-187-48-15

These 2 specimens were collected Mar. 31, 1938, by D. Jaffe at the locality 4 mi. E Panoche, San Benito Co., Calif.

780♀ Dipodomys h. tularensis (?) 310-173-45-15
781♂ " " " 298-173-42-15

The above 2 rats (780-781) were taken by Jaffe on April 1 at 6 mi. E Panoche, Fresno Co., Calif.

1 mi. ESE Crockett, Contra Costa Co., Calif.

June 21,

782♀ Citellus beecheyi 400-130-57-25

9 mi. NW Calistoga, Sonoma Co., Calif.

June 23,

♂783 Peromyscus truei 200-95-23-23
♀784 " " 157-72-20-17
♀785 Microtus c. 160-44-22-15
♂786 " " 141-40-22-14
♂787 Peromyscus maniculatus 158-68-20-16
♂788 " " 174-76-20-14
♀789 " " 176-78-20-16

June 24,

Hooper, 1938

2 mi. E Stewarts Point, Sonoma Co., Calif.

7900♂	Sorex	115-49-13
♂791	Peromyscus m.	~~117~~ 176-88-22-19
♂792	Microtus c.	190-53-24-15
♂793	" "	190-51-23-16

1 mi. E Stewarts Point, Sonoma Co., Calif.

♂794	Sorex pacificus	141-55-16
♀795	Sorex	116-42-14

1/4 mi. E Stewarts Point, Sonoma Co., Calif.

♀796	Peromyscus m. ~~Microtus c.~~	180-79-21-18
♀797	Microtus c. "	170-42-21-16

1 mi. S Valley Ford, Marin Co., Calif.

798 Pituophis

Hooper, 1937 1 mi. W Avon (salt marsh), Contra Costa Co., Calif.

Feb. 28,

801♀	Sorex	97-34-11	wt. 4.1 g.
802♀	Reithrodontomys	136-70-18-13	wt. 9.0 g.
803♀	"	155-79-17-12	" 11.0 g.
Skull only 804♀	"	163-84-17-13	" 10.5 g.
805♀	"	155-78-18-14	" 9.0 g.
806♀	"	155-75-18-14	" 10.5 g.
807♂	"	152-80-18-13	" 10.5 g.
808♀	"	171-91-21-14	" 11.0 g.
809♂	"	141-66-16-12	" 7.9 g.
810♀	"	134-63-17-14	" 8.7 g.
811♀	Microtus californicus	191-53-22-15	" 52.9 g.
812♂	" "	165-47-20-14	" 36.7 g.
813♂	" "	180-54-22-14	" 43.7 g
814♀	" "	158-44-22-13	" 37.5 g.
815♂	Mus musculus	160-75-17-12	" 14.7 g.

Pt. Reyes Sta., salt marsh, Marin Co., Calif.

Mar. 26,

816♂	Microtus californicus	189-51-21-15
817♀	" "	191-51-21-15
818♂	" "	178-47-20-15
819♂	" "	178-51-21-15
820♀	" "	177-52-21-15
821♀	" "	175-50-21-15
822♀	" "	160-41-20-15
823♂	Peromyscus maniculatus	189-86-23-16
824♀	" "	191-89-21-17

Hooper, 1937

Pt. Reyes Road, 2 mi. NW Inverness, 275 ft., Marin Co., Calif.

Mar. 27,

825♂ Sorex 132-51-14

Skull only
826? "

827♂ " 123-50-14

828♀ Microtus californicus 4 emb., 24 mm. 162-40-20-13

829♀ Peromyscus maniculatus 182-79-21-18

#829 from Inverness, 100 ft., Marin Co.

3 mi. NW Inverness, 450 ft., Marin Co., Calif.

Mar. 27,

Cranium of Skull only – pick up.
830 Odocoileus (Deposited in Univ. Mich., Mus. of Zool. #80421)

Grand Canyon, 50 ft., 2 mi. N Pt. Reyes Station, Marin Co., Calif.

Mar. 28,

Skin only
831♀ Microtus californicus 177-52-21-15

832♀ " " 172-46-21-15

833♂ Neotoma fuscipes 447-217-46-28

Bivalve, 2 mi. N. Pt. Reyes Station, Marin Co., Calif.

834♂ Reithrodontomys megalotis 154-76-18-14

835♂ Microtus californicus 175-46-22-15

836♂ Thomomys bottae 252-68-34

SW side Tomales Bay, opposite Pt. Reyes Station, Marin Co., Calif.

Mar. 26,

837♀ Accipiter velox

Bivalve, 2 mi. N Pt. Reyes Station, Marin Co., Calif.

Mar. 28,

Cranium + 1 lower jaw only – pick up
838 Lepus californicus

Deposited in Univ. Mich., Mus. of Zool. #80420

Hooper, 1937 — Inverness, 100 ft., Marin Co., Calif.

Mar. 27,

839 Ensatina (In wet leaf litter under bay trees; NW facing slope)
840 " " " " " " " " " "
841 " " " " " " " " " "
842 Triturus (In pool formed by spring under stand of bay trees + ferns).

The above 4 specimens were retained in the laboratory for study until killed on April 5.

1938 — 3 mi. W Inverness, 300 ft., Marin Co., Calif.

June 25,

♂843	Neurotrichus g.	125-37-16
♀844	Sorex	117-47-15
♂845	Reithrodontomys	141-73-17-13
♂846	Microtus c.	171-46-21-14
♂847	" "	163-41-21-14
♀848	Eutamias alleni	222-[78]-36-14

Olema Cr., 175 ft., 2 mi. SE Olema, Marin Co., Calif.

~~♂849~~

June 25,

♂849	Eutamias alleni	228-98-34-19

June 27,

♀850	Microtus c.	194-49-20-16
♂851	" "	190-50-22-17

Hooper, 1938

1½ mi. (by map) SW Five Brooks, Inverness Ridge, Marin Co., Calif.

June 27,

♂852	Eutamias alleni	233-100-35-18
♂853	Microtus c.	183-50-21-16
♂854	" "	178-43-21-16
♀855	" "	185-51-21-15
♀856	Peromyscus m.	199-91-21-18
♀857	" "	181-78-21-17

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif. July 6, 1938

♂858	Dipodomys	282-170-45-16
♂859	"	311-192-45-17
♀860	"	271-165-43-14
♂861	"	281-170-43-14
♀862	"	243-142-41-14
♂863	Peromyscus c.	250-138-28-24
♀864	" "	234-116-26-24
♂865	" "	230-120-25-23
♂866	" "	225-116-26-23
♀867	" t.	210-108-23-23
♀868	" "	[193]-[85]-23-22
♂869	" "	212-108-25-23
♀870	" "	212-106-24-23
♀871	" "	225-113-24-23

J

Hooper, 1938

N side Half moon Bay, 1/2 mi. N Pillar Pt., San Mateo Co., Calif.

July 8,

♀ 872	Sorex	120-43-13
♀ 873	"	108-40-13
♀ 874	Microtus c.	181-55-22-17 4 embs.
♂ 875	Reithrodontomys m.	160-85-19-13
♂ 876	Microtus c.	[177]-[46]-21-12
♀ 877	" "	187-52-22-16
♀ 878	" "	172-50-20-15
♀ 879	" "	164-40-20-14
♂ 880	" "	171-42-22-14
♀ 881	Peromyscus m.	185-85-20-16 5 embs.
♀ 882	" "	196-90-21-18 10 embs.
♂ 883	" "	173-75-21-13
♀ 884	" "	174-75-19-15

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.

July 9,

♂ 885	Dipodomys v.	285-174-48-17
♂ 886	" h.v.	307-193-44-13
♀ 887	" v.	300-183-43-16
♀ 888	" v.	303-184-44-16
♂ 889	" h.v.	234-133-41-14
♂ 890	Peromyscus t.	214-113-24-23
♀ 891	" c.	270-144-27-26
♂ 892	Eutamias m.	220-108-35-18
♀ 893	Peromyscus c.	260-138-26-24
♂ 894	" "	265-144-28-23
♂ 895	" m.	171-75-20-17

Hooper, 1938

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.

July 10,

♂896	Perognathus c.	205-111-25-13
♀897	" "	200-113-26-13
♂898	Reithrodontomys m.	141-73-16-12
♂899	Peromyscus t.	209-105-25-22
♀900	" m.	166-72-20-17
♀901	" m.	157-65-20-16
♂902	" c.	250-135-27-26
♂903	" c.	253-137-27-23
♀904	Eutamias m.	252-118-36-22

July 11,

♂905	Eutamias m.	249-114-36-21
♂906	Peromyscus truei	219-110-24-23

Halls Valley, 4 mi. W summit Mt. Hamilton, Santa Clara Co., Calif.

July 11,

♂907	Citellus beecheyi	338-69-57-29

Isabel Cr., 2200 ft., 3 mi. NE summit Mt. Hamilton, Santa Clara Co., Calif.

July 12,

♀908	Dipodomys [illegible].	307-188-45-17
♀909	" "	297-175-45-17
♀910	Peromyscus truei	194-93-22-21
♂911	" c.	236-120-26-25

Hoper, 1938

2½ mi. NE summit Mt. Hamilton, Santa Clara Co., Calif.

July 12,

♀ 912	Peromyscus	t.	218-112-23-22
♀ 913	"	"	205-100-24-22
♂ 914	"	"	198-96-24-23
♂ 915	"	"	210-110-24-22
♂ 916	"	"	205-109-24-22
♂ 917	"	c.	255-131-28-27
♂ 918	"	t.	195-97-23-22

Note:

Species accounts are kept (in addition to "general accounts") for native rodents taken in the counties bordering San Francisco Bay.

E. T. Hooper.

July 13, 1938

San Francisco Bay region counties

Dec 15, 1936 to July 12, 1938

general accounts

Berkeley, Alameda Co., Calif.

Oct. 25,

Last night Jack C. von Bloeker and myself set out 100 "Benson-Russell" "live" mouse traps in the Salicornia on Richmond salt marshes. More specifically, the locality was 1 mi. E mouth San Pablo Cr., salt marshes, Contra Costa Co., Calif. The area trapped was approximately 2 feet above high tide level. Traps were placed about 6 feet apart. Found in traps this morning: 1 Microtus c. paludicola, 4 Reithrodontomys m. longicaudus, 6 Mus musculus.

Hooper
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Bishop, Inyo Co., Calif.

Jan. 6,

Since Sunday, Dec. 27, 1936, the ground has been covered with snow. The first snow fell on this date in December – At the end of this fall (about Dec. 30) approximately 2 ft. of snow "on the level" was present. All low-lying vegetation – even Artemesia tridentata – was covered. During the period Dec. 27 - Dec. 31 I made several trips afield, hiking about 2½ mi. to the east, south and north of Bishop. Immediately after (the day succeeding) the snowfall no tracks of mammals were seen. However, the following day (2 days succeeding the cessation of snowfall) tracks were abundant in the open fields and along road- and canal-sides. Jack rabbit and cottontail tracks were most numerous, concentrated along ditch banks where vegetation was exposed. Smaller tracks (believed to be those of Perompscus and Reithrodontomys) were seen to lead from clump to clump and around almost each clump of the composite which abounds here. Most of these led ultimately to the dried flower head of these plants. Here was a supply of food that could not be reached when snow was not on the ground!

Hooper, 1937

Bishop, Inyo Co., Calif.

Jan. 6,

Previous to the deposition of snow only those seeds which fell to the ground from the upper flowers were available to the mice. Now the "walkable substrate" was on a level with the ~~dried~~ uppermost dried flowers. I noted tracks which I believed to be made by a fox ~~I~~ but am not certain. The sweet odor of a skunk was detected in the slight breeze at about 4 P.M. Birds noted included: Savanah Sparrows (abundant, in flocks, along streams in the willows and in clumps of composites in the open fields); Green-backed Goldfinch (1 seen, 2 mi. south of Bishop feeding on a composite along the highway); Magpie (flock of 4 or 5 seen each time I "went afield" in open fields or trees); Marsh Hawk (one bird seen at three different places - each time flying low - ± 6 ft. over open fields); Sparrow hawk (1 observed perched atop a poplar tree near town); Bush-tits (flock of ± 8 feeding in pear and apple trees); Red-shafted flicker (at least three seen or heard in trees - not seen feeding); a Wren (House)? (in willow thickets along a stream); Robin (2 seen in trees about town); Brewer Blackbird (flocks of ± 5 seen - one bird sought

Hooper, 1937

Bishop, Inyo Co., Calif.

Jan. 6,

the warmth of ashes, from the stove put out in our back yard); Horned Lark (flock of 7 seen feeding on composites); Black phoebe (1 seen on telephone wire); Junco (flocks of ± 10 + 15 feeding along roadway and streams); English Sparrow (flocks up to ± 20 seen about town); Spotted Towhee (1 seen in willows along stream); Meadow Lark (still seem to be in pairs, ± 8 seen, flew up from along edge of fields).

The seed-eating birds certainly predominate, as regards both kinds and number of individuals. At such crucial times as these most, if not all insects must be destroyed; insectivorous birds must consequently decrease or migrate. Seed eating birds seem to have a better chance for survival.

Yesterday, Jan. 5, I saw a Western Wood Peewee? out in locust, apple and poplar trees in the back yard of our house. It peered at the branches as if hunting for food — the bush tits seemed to have been successful here a few days ago — flew up to the eaves of the house, but was never seen to peck (for food).

Hooper, 1937

Berkeley, Alameda Co., Calif.

Jan. 13,

Set out 41 "snap" traps and 6 "Delusion" mouse traps last night in the Salicornia salt marshes 1 mi. E mouth of San Pablo Cr., Contra Costa Co., Calif. Bait used was oatmeal. Weather conditions: cold, ± 10 m.p.h. north wind; snow on hills in Marin Co. and on hills back of Berkeley Hills. This locality is the same place visited on Oct. 25, 1936.

This morning I found the Delusion traps untouched. In the "snap" mouse traps were: 5 Reithrodontomys, 4 Microtus, 1 Sorex vagrans, ~~and 3~~ Mus musculus, and 1 Marsh song sparrow. The 3 house mice were discarded and the song sparrow given to Mr. W. B. Davis. The remaining 10 specimens were put up by myself.

Jan. 16,

Drove last night, to Melrose Marsh about ½ mi. E Bay Farm Island and set out 34 snap traps, 6 delusion traps, and 20 "can" live traps. The weather: cloudy, rained just after I put the traps out. The Salicornia in which I set was for the most part dead, probably

Hooper, 1937

much as a result of the recent freezing weather. This morning I found the following animals: 4 *Reithrodontomys halicoetes*, 5 *Mus musculus*. One live harvest mouse was caught in a can live trap. The only other live trap found containing a specimen was a "can" trap — contained a dead house mouse. The rest of the animals were captured in snap traps (gov't. mouse traps). The water (rain) on the can traps was frozen this morning.

Feb. 15,

Trapped at the locality "Salt marshes, Giant, Contra Costa Co., Calif." last night. In the *Salicornia* and sedge I set out 50 gov't. mouse traps, 25 "Benson" live traps and 6 can live traps. These were placed for the most part on high ground above the normal high tide limit. Trails and small mammal signs are abundant here. When collecting my traps this morning at 8 P.M. I saw at least three small mammals running under the grass. Some of the burrows, even up on the high ground, were still almost full of water, probably a remainder of the several recent, hard rains. The soil is still saturated even on gentle slopes. Last rain was

Hooper, 1937

Berkeley, Alameda Co., Calif.

Feb. 15,

on the night of Feb. 13. The catch this morning was:
2 Mus musculus - 1 in "Benson" live trap; 1 in gov't. trap; 3 Microtus californicus - in gov't. mouse traps; 4 Reithrodontomys megalotis - 1 in can trap, 3 in gov't. traps. The two house mice were discarded, the live harvest mouse confined to a cage, and the remainder made into study skins. All of the mammals preserved were trapped in Salicornia. No embryos were found, though the testes were enlarged in one Reithrodontomys.

1 mi. W Avon (salt marsh), Contra Costa Co., Calif.
Feb. 28,

Left Berkeley at 2:30 yesterday P.M. in company with Mr. D. H. Johnson, and drove in M.V.Z. Dodge truck to Avon. Avon is a refinery town located about 4 mi. E of Martinez and on Suisun Bay; the place lies on a "spit" of land which is above normal high, high tide level. Surrounding it are extensive marshes covered with Salicornia chiefly, but with

Hooper, 1937

1 mi. W. Avon (salt marsh), Contra Costa Co., Calif.

Feb. 28.

an occasional growth of *Typha* in low-lying marshy places (this growth indicating that the water is not too saline - Pacheco Creek probably supplying some fresh water) and *Baccharis* on the higher ridges. The *Salicornia* is quite brown and superficially dead; however, near the bases of many plants new growth is appearing. On the south side of the S.P. - S.F. + New Orleans line - tracks and at places on the north side - particularly along slough channels, a coating of oil covers soil and vegetation.

Here, as at Giant, mammal sign is abundant - *Microtus* runways, droppings of meadow mice, harvest mice, some carnivore droppings which contained a very high percentage of bones and fur of small mammals. Steele traps were found set for raccoon and mink. The owner of the traps stopped this morning when we were collecting our mouse traps; he reported he had taken 12 mink from that region during the past year.

Hooper, 1937

1 mi. W Avon (salt marsh), Contra Costa Co., Calif.

Feb. 28.

At least 4 marsh hawks were seen. A ground squirrel burrow was noted along the railroad embankment. Marsh wren, song sparrows, meadowlarks, Brewer Blackbirds were abundant, all "singing" in the evening and morning.

I set out 35 "Benson" live traps and 67 snap traps at an average dist. of 10 paces apart in the Salicornia and along the border of a stand of Baccharis (with Salicornia immediately adjoining). In Typha and along a slough bank 13 snap traps were set at an av. dist. of 8 paces. All were baited with oatmeal.

Found this morning: In live traps: 1 Mus musculus. In snap traps placed in Salicornia: 9 Reithrodontomys, 1 Sorex, 2 Microtus, 2 Mus musculus. In snap traps in Typha: 2 Microtus. All but 2 house mice are saved as specimens.

We ate dinner in Martinez, drove back to the marshes to spend the night. After collecting our traps this morning we drove back to Berkeley — reached here at about 10 A.M.

Hooper, 1937

Berkeley, Alameda Co., Calif.

Mar. 7,

Yesterday afternoon, in company with D.H. Johnson and F.G. Palmer in Johnson's car, drove out through Walnut Creek and Pittsburg to the region between Antioch and Mt. Diablo. The purpose of the trip was to find small pocket mice (Perognathus inornatus), remains of which have been found in barn owl pellets taken from a locality about 3 mi. S Antioch. We searched for likely looking ground (sandy, un-grazed land) but could find none. We finally set out traps at the locality 2½ mi. S Antioch, 250 ft., Contra Costa Co. I put out 20 mouse traps on the crest of a grass-covered hill. Mammal sign was not abundant. Gopher diggings were found. Large, adult (evidently) Ground squirrels were seen running about on the south-facing slope. Traps were set at an average distance of 3 paces apart near old ground squirrel holes (which were evidently being used by some other kind of animal), near holes which looked suspiciously like kangaroo rat diggings, and around the border of a concavity (probably an old gravel pit or fossil diggings—since large limestone outcrops occurred there). In these traps I found this morning

Hooper, 1937

Berkeley, Alameda Co., Calif.

Mar. 7.

1 Peromyscus maniculatus. It was discarded. After setting out traps here we drove back toward ~~Martinez~~ Antioch to the locality 1 mi. S ~~Martin~~ Antioch, 100 ft., Contra Costa Co. Here I set out 48 mouse traps in wheat stubble along a stream running thru the field. ground squirrels were heard calling and numerous burrows noted. Found this morning: 21 Peromyscus maniculatus (10♂, 10♀). Saved 3 females and 2 males. I forgot to mention that sheep were grazing over the hillside where the first group of traps were set. Most of the traps were sprung.
Returned to Berkeley this A.M. via Somersville, Nortonville and Walnut Cr.

Mar. 10, 1937

While up in the Berkeley Hills yesterday looking for a suitable area for the zool. 113 Microtus study, Fred Test and I found 1 Gerrhonotus and several Batrachoseps under pine logs in grass at the top of Dwight Way Hill. The lizard was partly hidden by the bark of the log was cold, sluggish and seemingly in a state of semi-torpor.

Hooper, 1937

Inverness, 100 ft., Marin Co., Calif.

Mar. 27,

In company with Mrs. Hooper and my brother Frank Hooper, left Berkeley Mar. 25 at about 11 A.M. and drove to Inverness for a 3 day + vacation and collecting trip. En route noted: California gulls and Ring-billed gulls riding the air currents over the ferry boat; 3 Eared? grebes riding on and diving in the water of the bay; a sparrow hawk on telephone wire along road near Fairfax; 4 black-tailed deer in redwood grove along stream near San Geronimo; numerous crows in flocks and two's from Ross Valley to Inverness; many gulls (± 35) foraging in fresh water marsh at mouth of Olema Cr.; turkey vultures near Inverness.

We are now in Sumner's cabin located about 100 ft. above the canyon on the NW facing slope of the canyon which opens out (mouth) at the stores in Inverness. The vegetation here: Calif. bay, Pinus ~~radiata~~ muricata, Ceanothus sp.?, madrone, buckeye, alder, sword fern (Polystichum aculeatum). This vegetation is present on both north west and south east slopes of this canyon. Higher up toward Mt. Vision a more pure stand of P. muricata and Ceanothus sp is found – as well as of alder.

Hooper, 1937

Inverness, 100 ft., Marin Co., Calif.

Mar. 27,

Night before last (Mar. 25) I set out traps at the locality Point Reyes Station, salt marsh. This locality, more exactly, is about ½ mi. NNW Pt. Reyes Station at the head of Tomales Bay - on the N.E. side of this Bay. 35 traps were set in Salicornia mostly in Microtus runways not over 100 ft. from the old San Francisco and Cazadero Railroad bed. Found in those traps: 7 Microtus. Set 15 mouse and 1 rat trap on the hillside east of the marsh in thimbleberry, ~~bracken~~ sword fern, Baccharis. Saw what may have been Aplodontia burrows in sword fern clumps. Caught nothing in the brush. Made 1 gopher set; set not disturbed when taken up the next morning. Also set 25 mouse traps the same evening on the west side of the Bay (Tomales) about opposite (as re. latitude) the locality on the east side. These traps were set in sedge? (arrow grass?) and in Salicornia. Caught here 1 Microtus and 5 Peromyscus (3 ~~juv.~~) - all in Salicornia.

Hooper, 1937

Inverness, 100 ft., Marin Co., Calif.

Mar. 27

Last nite I drove out the road toward Pt. Reyes to just the other side (West) of the E-W summit. The locality, Pt. Reyes road, 2 mi. NW Inverness, is about 1/2 mi. down ~~the~~ canyon toward the ocean from where the old "Newman Cabin, 3 mi. W Inverness" locality was — see W. P. Taylor, J. Grinnell, C. L. Camp, etc., 1912. Set 50 mouse traps about 6 paces apart (av.) in the soggy, wet, meadow, under sword fern and (arrow? sedge?) ~~grass~~ grass. The ground is very wet, most of it covered with 1" or more of water; only occasional places out of water — and these soggy. Caught this morning in the above situation: 1 Microtus (with 4 embryos) and 3 Sorex. One shrew was so badly eaten by some animal that only the skull could be saved.

Frank put out 20 traps near our house — under fern clumps, at the base of bay and alder trees. He found this morning 4 Peromyscus maniculatus (3 juv.).

Hooper, 1937

Inverness, 160 ft., Marin Co., Calif.

Mar. 27,

Noted a kingfisher sitting on a telephone line at the mouth of one of the canyons (at whose bottom was a small stream - pond at mouth) about 3/4 mi. N. Inverness; a great blue heron near this locality but in the salt water tidelands.

Mar. 28,

Went north of Pt. Reyes Station last night to the locality Grand Canyon, 2 mi. N Pt. Reyes Station and Bivalve, 2 mi. N Pt. Reyes Station. Grand Canyon is one of the several wooded canyons which interrupts the even, rolling hills on the north side of Tomales Bay. Bivalve is (or rather was) a settlement located at the mouth of Grand Canyon. Only an old road house or "liquor joint" now marks the spot, as regards houses. In the canyon the following plants grow: poison oak, Calif. bay, willow (along stream), Baccharis, and grass - the last filling in the spaces between chaparrals or trees. This vegetation is on both slopes, but more dense on the NW-facing than on the SE-facing. A stream now flows in the bottom of the canyon, however

Inverness, 100 ft., Marin Co., Calif.

Mar. 28.

it probably dries up in the summer time, since its drainage area is so small. Noted red-tailed hawks (2) ~~soar~~ and turkey vultures (4) soaring over the canyon. Also saw in the canyon: 1 Western Robin (on telephone line); 1 wren-tit (and heard several - in dense poison oak and Baccharis), 1 lutescent warbler - heard several - in Calif. bay ~~trees~~. Numerous wood rat houses were noted on SE-facing slope in poison oak and Calif. bay. I set 45 mouse traps on SE-facing slope under poison oak, bay, and Baccharis, and 2 rat traps (1 up in bay tree and 1 in nest). Caught: 1 wood rat and 3 meadow mice. At the mouth of the canyon near Bivalve [see U.S.G.S. sheet, edition 1918] in Salicornia about 15 ft. from a chaparral-covered hillside, (on 1 side) and ± 10 ft. from a slough on the other side I put out 35 traps. Caught this morning 1 Reithrodontomys and 2 Microtus. In 7 gopher sets made at Bivalve on a grassy hillside I took 1 Thomomys. In the hole in which taken the animal was caught in the posterior end, facing down the burrow. Yet the hole was well plugged with dirt - it was open

Hooper,
1937

Inverness, 100 ft., Marin Co., Calif.

Mar. 28,

when the trap was set. At the head of Tomales Bay at mouth of Olema Cr. more gulls were seen feeding on ground flooded to a depth of about 2 in. Among the smaller Calif. and ring-billed gulls was one glaucus or glaucus-winged gull. It was much larger than the others, had a large bill (black, except perhaps for basal half or third); feet and legs not seen; plumage entirely white except for slight washing of dusky over breast and lining of wing.

Berkeley, Alameda Co., Calif.

After putting up specimens we packed all belongings in the car and started for Berkeley (1 P.M.). At .3 mi. NE of Trout farm [see U.S. G.S. sheet, ed. 1918] near head of Tomales Bay, we found a deer by the side of the highway - it evidently had been hit by a car; was a ♂, without antlers. Noted another kingfisher near the Trout farm. Drove down Olema Valley to Bolinas, then took road up over Bolinas Ridge by Lagunitas and Phoenix lakes to Fairfax, thence down main hwy. to San Raphael and ferry. Reached Berkeley at about 5:30 P.M.

Hoffer, 1937

Berkeley, Alameda Co., Calif.

Mar. 29,

The NE facing slope of Bolinas Creek Valley is thickly wooded with humid Transition vegetation: redwood, Douglas fir, madrone, buckeye, Ceanothus — this from Olema down to Woodville. On the SW facing slope the crests of the hills are covered with grass, while Calif. bay, poison oak, Baccharis are in the canyons. On Bolinas ridge (SW facing slope) near Bolinas lagoon the transition coniferal elements occur on shaded slopes. On the north side of the Ridge this humid redwood association becomes dominant. In summary of the trip from Bolinas to Fairfax via Lake Lagunitas it may be said that the humid Transition elements occur on north facing, protected slopes while Baccharis, poison oak, and Calif. bay are on the south slopes — open grassland with occasional oak or Baccharis thicket on the most exposed warm slopes or hilltops.

Loose ends of trip:

~~Surf scoters~~ scaups + ruddy ducks, noted on bay (we were en route to Berkeley on ferry); Western grebes — 2 on Bolinas lagoon, 1 near Richmond ferry mole; 1♀ pheasant flushed from salt marshes (in Salicornia) at Rodeo;

Hooper, 1937

Berkeley, Alameda Co., Calif.

Mar. 29,

The sharp-shinned hawk put up was found along the highway near the head of Tomales Bay, more specifically SW side Tomales Bay, opposite Pt. Reyes Station, Marin Co., Calif. on Mar. 26. The following amphibians were collected in leaf litter and around a spring near our cabin in Inverness, 100 ft., Marin Co.: Triturus, ~~Aneides~~ Ensatina, Batrachoseps. Other amphibians (all Hyla regilla) were taken in fresh water pools near Pt. Reyes Station, Marin Co. The jack rabbit cranium & 1 lower jaw only was pick't. up in the Salicornia at Bivalve, 2 mi. N Pt. Reyes Station, Marin Co.

April 4,

While in John Garber Park on north-facing slope of Claremont Canyon, Berkeley, I noted the first tolmie warbler seen this season. It was seen about 2 P.M. foraging in an elderberry and willow thicket. Transition elements [ie, madrone] may be here, but the region is chiefly Upper Sonoran. Plants noted are: Calif. bay, live oak, willow, thimbleberry, elderberry, alder, poison oak, Baccharis.

Hoofer, 1937

Berkeley, Alameda Co., Calif.

April 25,

In company with Bill Engels, Bruce Whitacker and Emerson Reed I went to Pinole for the purpose of obtaining bats. The locality more exactly is about 1/2 mi. N Pinole, Contra Costa Co. Here are located 3 large grain barns, the center one of which is now used for storage of miscellaneous objects. In this center structure we found Antrozous pallidus ~~too~~ to be abundant and Tadarida not uncommon. The bats were roosting in narrow spaces located between the shingles of the roof and a 1"x12" cornicing around the edge of the roof. As many as 10 pallid and 1 free-tailed were dislodged from a space 10" long x 8" wide x 1½" high. Probably 30 or 40 Antrozous could have been easily collected, however we took only about 15 – and 4 Tadarida. Here then is evidence that: (1) Antrozous are gregarious as well as Tadarida; (2) that both will roost together in the same mass.

The note or voice of the two is different: that of Tadarida more shrill and faster in cadence.

Hooper, 1937

Berkeley, Alameda Co., Calif.

May 25,

Drove to Marin Co. yesterday with Art. Rempel of the zoology department. Our itinerary was as follows: left Berkeley at 12:45, drove to Richmond ferry, thence across the Bay to San Rafael mole; thru San Rafael north on Redwood Highway to Petaluma. Here we measured two "big game" specimens for the "Records of North American Big Game". At 4 P.M. drove back on northeast side of Petaluma marshes thru Lakeville to Napa road, thence back to the marshes immediately back of St. Vincent's School for Boys (St. Vincent railroad station) and finally back to San Raphael where we ate dinner after setting out traps on the marshes near here. Then drove back to St. Vincent to spend the night. This morning we collected our traps here and at San Rafael and drove back to Berkeley by the same route – reached here at 7:30 A.M.

There is considerable unclaimed marshland around Lakeville, but most of the land about Petaluma is under cultivation.

Hooper
1937

Berkeley, Alameda Co., Calif.

May 25.

St. Vincent is about 5 mi. N of San Rafael on the Petaluma highway. It is on the north side of the marshes at the mouth of Gallinas Cr. (see U.S.G.S. Petaluma sheet, ed. of 1914). Here back of the School there is an unclaimed Salicornia area of about 20 acres. Noted here: numerous meadowlarks (1 nest with 5 eggs found in thin stand of Salicornia; black-crowned night heron (3 flying over, 1 on bank of slough, + 1 on San Rafael marshes); 4 ducks (sounded like mallards); "numerous" cliff swallows (flying over Salicornia and grass land); Song sparrows (in trees, brush bordering marsh; mourning dove (a pair flushed from marsh); Killdeer (calling from mud flats); pheasants (1 flushed and others heard—"dust baths" believed to have been used by this kind of bird were seen); crows (± 10 on marshy ground); Hyla (heard croaking and 2 seen); garter snake (2 seen); spotted skunk (1 almost ran over my sleeping bag last night.

Hooper, 1937

Berkeley, Alameda Co., Calif.

May 25,
At the locality "St. Vincent, salt marsh, 5 mi. N San Rafael", from 50 mouse traps set in runways in Salicornia I took only 1 animal—a Reithrodontomys halicoetes. From 40 mouse traps set in Salicornia at the locality "1 mi. E San Rafael, salt marsh", I took: 2 Mus musculus (1 a partial albino) and 10 Microtus. Rempel caught nothing at either place (20 traps at St. Vincent, 30 at San Rafael) so I gave him 1 Mus and 3 Microtus (1 juv., 1 ♂ ad. & 1 ♀ ad.).

June 1,
In the course of measuring big game skulls and skins for "Records of North American Big Game" (a publication of the Boone and Crockett Club, in care of American Museum of Natural History), I have encountered and made friends with many of the so-called sportsmen of North America. Perhaps I should not say "so-called" for with one or two exceptions (out of about 30 people seen) these men do seem to have a "sporting outlook" as regards big game hunting.

Berkeley, Alameda Co., Calif

June 1,

By "sporting outlook" I mean that each seems to expect to work for each animal secured. In order to get the "big ones" (and each does) each hunter knows he must outwit and outwork the animal. For the reason that the securing of wapiti and moose is comparatively easy, the hunter (as a rule) would rather match his wits and stamina with an old buck deer, a mountain sheep and (or) a mountain goat. For the above reason, and undoubtedly for the reason that the latter animals are not so accessable to hunters in central California, except bucks, not ~~one~~ many of the latter kinds were seen.

On May 17, I visited Mr. Leslie Simson of Chancellor Place, Berkeley. Mr. Simson is one of the old-time big game hunters — one who hunted, evidently, for the sake of killing and of adding the skin or skull of the animal (if big enough) to his collection. The front room of his house, about 30' x 20' x 20 ft. (high), is almost completely covered with heads — most of them Afrika-taken specimens. He spent about 30 yrs. in Africa — as a

Hooper, 1937

Berkeley, Alameda Co., Calif.

June 1,

mineralogist? and hunter. He told me that he probably would give his collection of mounted heads to the Univ. of Washington, since the officials there have promised to keep the collection intact. He does have a series of bear skulls which should go in M.V.Z. that he loaned to C.H. Merriam about 20 yrs. ago. They are skulls of western-taken animals.

At Hollister, Calif. - visited on May 29 + 30, I encountered several people worthy of note. Chas. Lompa, reported to be the one who has hunted the longest in the county, had 40 or 50 antlers nailed up on the tank house and barn; most were of black-tailed deer. Anthony (Tony) Matulich measured almost all of the heads sent in to "Records of N.A. Big Game". He accompanied me about to see several of the "head owners" - helped considerably - is quite interested in hunting and heads measurements. Tony has the largest mule deer? set of horns I have seen. The head resembles a picture I have seen of the set owned

Hooper, 1937

Berkeley, Alameda Co., Calif.

June 1,

by Dr. Beck(?) of Philadelphia - the largest in the world. ~~I~~ invited Tony and a Carl Bleifus to visit M.V.Z. Bleifus is an interesting person. About 43 yrs. old, but with the vigor and intense interest in his work of a child, he is a "natural naturalist." With no scientific training whatsoever, with only a natural curiosity to see "what things are", and "what makes them go" he has information at hand which makes one listen. He has a large collection of freak deer antlers ~~heads~~ (about 50) all well labeled and mounted. His chief interest at present is fossils. In the fossil collection he has examples of many plant and animal phyla - mostly animal. All specimens are appropriately catalogued - a numbered tag on the specimen ~~which~~ which refers to a page in ~~a~~ of several leather-bound loose-leaf notebooks. Of particular interest to me was a grizzly bear skull found in San Benito County. It is a good specimen - minus lower jaws + a part of a zygomatic arch. I am sending him some M.V.Z. publications today.

Hooper,
1937

Berkeley, Alameda Co., Calif.

June 1,

Tony Matulich knows a man who is employed by a rich landowner (the land owned including Potrero & Laveaga peaks) to trap fur-bearing mammals. If M.V.Z. is interested many skulls could be secured from him. This same landowner is said to be a "nice fellow" and would be quite amenable to having a scientific collecting party on his land.

Hooper, 1938

[Trip to] Isabel Cr., 2200 ft., Santa Clara County, Calif., and eastern Santa Clara and Alameda counties. Jan. 6,

Trip made in company with Mr. T. Paul Maslin Jr. in my auto; overnight trip. First business of day we left (Tues., Jan. 4, 8:30 A.M.) was to measure some big game heads owned by a Dr. Lockwood at Millbrae, Calif. Lockwood proved to be quite interesting and consciencious in his work as a taxidermist. Not like other people I visited he evidently attempted to present the measurements of the heads as they really are and did not "pad" them. He had many (± 75) heads, some of which should be among the "first" in the list. Most of his specimens were taken in western North America by various hunters (not himself) though there were some from elsewhere, notably Africa. Noteworthy perhaps are three sets of bighorn horns taken from western Nevada. He also knows of another person who has a complete head from this same region. There were several moose, mt. goat, wapiti, many mt. sheep and bear, and several pronghorns and caribou. It may be worth while to keep him in mind for sources of specimens

Hoover, 1938

Isabel Cr., 2200 ft., Santa Clara County, Calif. and vicinity.

Jan. 6,

Left Lockwood's place at 12:30, ate lunch in Burlingame, then drove to San Jose, whence took road to east to Mt. Hamilton. Followed road by observatory on down northeast side of Mt. Hamilton to Isabel Cr. Ac. to the U.S.G.S. sheet, 1906, ~~where~~ the road crosses the creek at about 2200 ft. We camped and trapped on the floor of the flood plain near this point. The next day, after picking up the traps, we followed the road on down Arroyo Bayo (poor road, along creek bed) into San Antonio Creek drainage and San Antonio Valley thence north along Arroyo Mocho to Livermore. Trip from Isabel Cr. camp to Livermore took about 3 hrs.

The country about Mt. Hamilton is typically Upper Sonoran. I saw no organisms which could be considered Transition indicators. The slopes of Mt. Hamilton and, as well of other "hills," are much as those seen on Mt. Diablo. Exposed faces, tops of ridges, and south facing slopes are grass covered with occasional oaks and digger pine. Shaded canyons have a growth

Hooper,
1938

Jan. 6,

of Ceanothus Arctostaphylus, Arbutus, Adenostema, occasional Aesculus and Umbellularia. Some shaded canyons were found to be quite moist at this time of year; seepage from a soggy ground supplied the necessary moisture for rather luxuriant growths of ferns and other mesophytic plants. On the north side of Mt. Hamilton (away from Santa Clara Valley) vegetation is more abundant. More Coulter pines were noted and, as well, a short-needled pine with a dark green foliage and a profile much like that of Pinus radiata; these latter pines were few. On this same side of the mountain was found a more abundant growth of Adenostema and Ceanothus; however, most exposed slopes were still grass covered. Along Arroyo Bayo and San Antonio Creek were occasional junipers - found chiefly on north and shaded slopes. The country in here is more rocky; places (ie., habitats) where I would expect to find many Peromyscus truei, P. californicus, Perognathus californicus,

Also *P. douglasii*.

Hooper,
1938

Jan. 6.

and Dipodomys heermanni and probably D. venustus, were noted here. The flora and fauna was found to be much the same (with local limitations, of course) all the way north to Livermore Valley. Very little poison oak and some toyon was seen. Oaks were chiefly Q. kelloggii (blue), Q. agrifolia (live); on lower slopes were Q. lobata (valley); on slopes (as seen at Isabel Creek camp) was Q. dumosa? (scrub).

Birds noted: Plain Titmouse, California Jay, Red-shafted flicker, Red-tailed Hawk, Western Crow, California Thrasher, Calif. Brown Towhee, Wren-tit, Audubon Warbler, Junco, White-crowned sparrow, Horned Owl, Turkey Vulture, Killdeer,

In Isabel Cr. Triturus were found to be abundant (We had picked up two from the roadway en route to camp). In the evening when we arrived they all seemed to be moving up-stream. Two kinds were noted: one rough, rugose, dark; another larger, more soft + slimy, and lighter yellow in color. Tues. nite (Jan. 4)

Hooper,
1938

Jan. 6

we spotted (with lights) many swimming slowly about in pools; some were laying eggs - hind feet were clasped together near the genital orifice on ventral side of body, seeming to serve to catch the eggs and hold them together and to some bit of grass or debris until the mucous substance around the eggs swelled + held them together. Paul saw pairs in amplexus Tues. afternoon; I saw others Wed. morning; however none was seen in this condition at night.

I set out 100 mouse traps about 10 paces apart in Adenostoma, Ceanothus and Q. dumosa, and beneath fallen trees; traps baited with oatmeal. Also 2 rat traps - one under log; one in rock ledge. Wood rat sign abundant. Saw deer tracks "almost everywhere" and coyote (?) tracks along the creek

Found in traps Wed. A.M.: 5 Peromyscus californicus and 33 P. truei. I discarded 23 truei mice. One rat trap and about 10 mouse traps were sprung but empty.

Hoofer, 1938

Berkeley, Alameda Co., Calif.

Jan. 31,

Notes on "Jay Shoot" held by members of the Calaveras County Sportsman Assoc. in Calaveras County, Calif. This is the second shoot held Jan. 30, by the Association at which M.V.Z. members attended. Miss. Mary Erickson and I were on hand in April, 1936. See our notes on that trip.

Left Berkeley at 9:15 a.m. with J. H. Test and F. Richardson in Dodge truck. Drove out thru Hayward Livermore + Tracy on U.S. Hgwy. 50, then turned (east of Tracy) north on Hgwy. 99 to Stockton, thence north-east on (8) thru Linden, Bellota, Jenny Lind to Valley Springs; lunch here 12:30-1:15. Then to San Andreas where tried to contact sportsmen, store owners, etc but with little luck; thence to Angels Camp. Returned home via same route. Left Angels at 8:20 P.M; reached M.V.Z. at 12:50 P.M. Total mileage 250 [miles].

No shoot was held in 1937. This is apparently due to lack of a unifying head to call the shoot and, too, probably lack of interest. The affair this year was under the leadership of Mr. F. J. Grillo, an affable and pleasant owner of a Gents Furnishings store in Angels. He seemed to be Treasurer of

Hooper, 1938

Berkeley, Alameda Co., Calif.

Jan 31,

the association. He cordially took us "in tow" and presented ~~(1)~~ us (1) to the other men and (2) with some desirable information.'

"Methods of shoot: No sides chosen this year; the competative spirit was dispersed but not lacking. About 20 men shot birds; 30(±) at dinner afterwards. Instead of a barbecue, as in 1936, the group met at "Tones Place" a restaurant and saloon in Angels. Each man purchased his own meal at 50¢ per. Afterwards, there apparently was to be an official meeting of the association.

We were on hand at 6 PM with Mr. Grillo. The first hunters to come in arrived at about 6:15, the last about 7:30. Jays were brought in (contained on string-like line of fish— in paper bags and burlap sacks) and dumped on the floor— with or without "ceremony" but always with such remarks as "How many, Frank, Joe," etc. Apparently their hunger drive was much stronger than their curiosity to get the total count for the day, because at 7:30 they all retired to the "dining room" and we were left to count the birds and, finally, with more handshaking, flattering words, etc., to take our leave.

Hooper,
1938

Jan. 31

Area covered by hunt: about as in 1936 - approximately 20 x 20 mi. (400 sq. mi.) - but not ~~at~~ all well combed by ~~men~~. Area extends from Murphy & Angels down to San Andreas. As mentioned before about 20 men hunted - 4 from Angels and all or almost all the rest from San Andreas.

Bag: Number shot per man ranged from ~~about~~ 3 to about 30 (No accurate check made). Total birds: 166 - Steller, 63 - California, and 1 ~~Cooper~~ Sharp-shinned hawk. A scalp of 1 house cat also appeared.

Time spent per man: 1 hr. ± to "all day".

The fewer men shooting was explained on several counts: (1) Dance Sat. nite in San Andreas - with "aftermath" today; (2) Cloudy cold weather; (3) lack of interest; (4) lack of competition; (5) "had to work".

Fewer jays collected due, almost unanimously, to "cold, cloudy weather - makes birds stay in trees & brush"; when disturbed from hiding place, would fly ~~to~~ tree, then out on other side immediately, and would not hop from bottom to top of tree - before flying - as on clear days." Incidentally, we too found ~~this~~ to be true, in general.

Hooper, 1938

Jan. 31

Other germs gathered from their conversation:
Mt. Jays most abundant here now; they move up-mountain in spring. Results of the two shoots we attended will bear this out as true.
Few, but some, actual sights of jay eating (1) young (brains pecked out) (2) eggs - sucked (evidence here doubtful) of quail.
Little or no difference in quail population seen in past year or so.
3 - "~~bullet hawks~~ Chicken hawks" or sharp-shinned (called so by 1 person) killed at their game farm - each with a quail.
"Mt. Jays not as noisy as Valley Jays."
Many coyote about. Ground squirrels few, only seen in local places.
Gray squirrel becoming more abundant; believed to really be on upgrade. Several reported that they "look closely at each one to see if it looks healthy. If it looks scabby or sick, I shoot ~~them~~ it."
They seem to welcome, truly, their increase.
No poison campaign for squirrels or predator control (other than their own) carried out for several years = 3 yrs., at least.
House cats are definitely in ill repute.

Hooper,
1938

Jan. 31

On man runs a trap line about 1½ mi. from nearest house and ± 5 mi. from the main roads. In 1½ weeks he reports: 1 fox, 1 (or 2?) skunk, 1 dog and 7 cats. Needless to say, each was quickly destroyed.

"Dumping" of cats in wild reported as still going on.

At their hatchery or game farm they are raising Chinese Pheasant, Chukar Partridge, and quail. All will be liberated this year. Some quail were set free but they continue to return to the game farm for feeding! The "keeper of the game" reports Sonora, Calif. association having good luck with Chukar Partridge. Liberated last year or year-before-last "many" young birds have been seen.

Most of the men seem to realize (1) the difference in appearance between "soaring", "squirrel" "chicken" (accipiters), and "bullet" (sparrow) hawks and (2) their chief foods. They concentrate on the center group. But tho "a hawk is a hawk to be killed" has lost some of its venom, it probably still applies somewhat.

All have a good time. A jay shoot's chief value lies in the fellowship of hunting together. An end in itself

(signed) ______________ P R E D A T O R R E P O R T CLUB ______________ for month of ______________

INSTRUCTIONS Enter KILL reports (not points) Mail - 5th of the following month to - Robt. H. Allen Lathrop, Calif.	Mountain Lion	Bob Cat	Coyote	Wild House Cat	Crow	White Pelican	Horned Owl	Cooper Hawk	Sharp Shinned Hawk	Water Snake	Skunk	Weasel	Ground Squirrel	Magpie (Bluebill)	Blue Jay	Butcher Bird	Field Rat	Jack Rabbit	FOR OFFICE USE	
NAME OF MEMBER	500	100	100	50	50	50	20	20	20	20	10	10	10	10	5	5	5	5	Kill	Pts.
TOTAL																				

This is an official predator report list of the California Sportsmen Association. Each month each local association (e.g. Calaveras County Sportsmen Association) is supposed to send in to state assoc. headquarters such a report of predator-kill progress. A cup, plaque, or some other such prize is granted to the local group having the highest score. The San Benito and Monterey counties associations are said to most often top the state list.

E.T.H.

Hooper, 1938

Berkeley, Alameda Co., Calif.

Mar. 7,

Saturday PM at about 2:30 left Berkeley in M.V.Z. truck #112 with Dale Arvey and Chandler North for overnight trip to salt marshes on S.F. Bay side in Marin Co. Arrived at our first destination — marshes at the S.P. railroad station Manzanita at about 4 P.M. Set traps here then progressed northward to large marshes continuous to but east of Corte Madera and Larkspur. The marshes lie about the mouth of Corte Madera Creek. After setting traps at 2 places here, went 3 mi. north to San Rafael for dinner + picture show. Then back to marshes to sleep. Picked up traps Sunday morning + returned by same route (Golden Gate Bridge + Oakland-S.F. Ferry — went via Bay Bridge going over —) to Berkeley, where arrived at about 10 AM.

It had been raining when we arrived at the G.G. Bridge; when we began setting traps it began again and kept up a slow drizzle interspersed with hard showers until we left Marin Co. This rain undoubtedly affected our trapping results — if it did not affect the activity of small rodents (and I believe it did) it did set off many of our traps.

Hoofer, 1938

Berkeley, Alameda Co., Calif.

Mar. 7,

Manzanita is a station on the electric railway (Sou. Pac.) which runs from Sausalito to San Raphael and lies on the west side of Richardson Bay. Widow Reed Cr. empties into the marshes on which it lies. Here salt marsh, Manzanita, Richardson Bay, Marin Co., Calif. I set out 14 mouse traps in low Salicornia and few rushes; traps set about ~~10 ft.~~ 8 paces apart and about 25 ft from automobile trestle over the marshes. ~~At the~~ ~~ses~~ Next morning I found:
1 Microtus, 2 Reithrodontomys and 2 Peromyscus. The second locality trapped (salt marsh, 2 mi. ESE Corte Madera) ~~was on the~~ marshes bordering S.F. Bay proper and at the south end of the region about the mouth of Corte Madera Cr. The locality is adjacent to the high, non-marsh land at the north end of Tiburon Peninsula. Here where I trapped the grassy hillsides bound the salt marshes - separated only by the roadway. I put out 31 traps in sparse Salicornia and in rushes and some wild oat (little, along the road) Found Sun. AM: 2 Peromyscus, 1 Microtus, and 6 Reithrodontomys. Microtus runs

Hooper, 1938

Berkeley, Alameda Co., Calif.

Mar. 7,

were abundant. One was seen running thru the vegetation. About 1 mi. NW of this locality in dense, high *Salicornia* (± 2½ ft. high) along the railroad tracks to Tiburon Penin. I put out 44 mouse traps about 8 ft. apart. Found Sunday: 3 *Microtus*, 2 *Reithrodontomys* and 2 *Mus*. The latter 2 were discarded. This locality = salt marsh, 1 mi. ESE Corte Madera.

As a result of this trapping it is apparent: (1) That *Reithrodontomys raviventris* occurs north of S. F. Bay. (2) That its presence here must be explained. (3) That its range may extend on northward to that of *R. halicoetes*. (4) That *R. raviventris* and *R. megalotis* occur together where the grassy slopes meet *Salicornia*. (5) That trapping must be done from San Rafael northward to clear up some of these matters.

The fact that *R. raviventris* doesn't occur out of the *Salicornia* would seem to me to indicate that it is a native kind to this habitat which has spread here ~~from the south~~ or that it has been introduced into an unoccupied niche or displaced *halicoetes*.

Hooper, 1938

2 mi. W Oakley, 50 ft., Contra Costa County California

June 21,

Left Berkeley this morning at 10:A.M. with Dawson Feathers in my Plymouth. Drove on main hwy. to south side of Carquinez Bridge. Stopped there to look for ground squirrels. After about 45 min there drove thru Crockett to about 1 mi. E S E when and where again hunted for squirrels. Drove into Martinez, after hunting at above locality for about another hour, for lunch and food for tonight. Thence to Concord and Clayton, over Marsh Creek Road to Curry Canyon on the south fork of Marsh Creek. Up Curry Canyon to about 1000 ft., then back down and to main highway on north fork of Marsh Creek on Road to Byron. 5 mi. W of Byron we turned north to Brentwood, ~~thence~~ north and west to this locality: 2 mi. W Oakley, 50 ft., Contra Costa County, California. Here in mixed areas, (1) part uncultivated and with rather thick stands of Adenostoma, occasional live oak and undergrown with wild oats and brome? and (2) along edge of grain field I set 69 mouse traps about 10 paces apart.

~~Hooper~~, 1938

2 mi. W Oakley, 50 ft., Contra Costa County, Calif.

June 21,

The hills between Crockett and Martinez are gently rolling, resembling those around Lafayette and Walnut Creek both in vegetation and in topography. Exposed hill tops and sides (but for canyon bottoms) are grass-covered. In the canyons are live oak, occasional Calif. bay, buckeye, poison oak, and a few rose thickets. Few areas were seen which would provide cover dense enough for wood rats. The range of hills to ~~the northwest~~ + north of Mt. Diablo and Marsh Creeks are entirely grass covered. No canyons with chaparral or trees were noted on the creeks' side of these hills. Curry Canyon, from the mouth apparently just about to its source, is pretty much the same. In more moist and sheltered areas are sycamore, maple (few), bay, buckeye (much), rose. Poison oak abundant; hazel not seen. The understory is covered with dry grass and leaf litter — poor picking for mammals. P. maniculatus would be there, but not abundant. Probably P. truei would be few. Adenostoma stands prevail on the upper slopes of Mt. Diablo Peak. — at least on S-facing and crests of slopes from about 2500 ft. on up.

Hooper, 1938

3 mi. W Oakley, 50 ft. Contra Costa County, Calif.

June 21,

In Curry Canyon noted: Black Phoebe, Black-headed Grosbeak, Plain Titmouse, Green-backed Goldfinches, Sharp-shinned Hawk, Turkey Vulture, Western Bluebird, Bush-tit, Calif. Quail, linnet, Bewick Wren, Steller Jay, Calif. Jay.

Sandy areas on the Marsh Creek Road on Canada de los Poblanos and in Briones Valley support ground squirrels - probably nothing else, as regards native mammal life. Oakley area is quite sandy. The sand extends hillward at least 2½ miles, ~~began~~ stops abruptly to adobe soil about 3½ mi. SW of Oakley - along foothills. All this area is under cultivation except, apparently, this small (4 acres) plot. Perhaps the vegetation here will give one ~~the~~ an idea of the nature of the area before being cleared. Open oak woodland, giving way to thickets of Adenostoma with occasional Artemesia. Dry wild oats matting ground under all. Soil almost driftable - is driftable when not vegetation covered. Pocket gopher diggings abundant.

Caught nothing in traps last nite.

Hooper, 1938

Sarco Cr., ±1000 ft., 6 mi. NE Napa, Napa Co., Calif.

June 22,

This AM left previous camp to drive here for short stop (now 2 P.M.). Drove over Antioch bridge, across Sherman Island to Rio Vista thence to Fairfield and to Napa and up Sarco Creek road to this camp. Sherman Island is completely (or almost so) under cultivation. I saw no Salicornia patches which is to say that salt marsh mammals now practically nil. Probably the marshes near Fairfield are also under cultivation. Could see no marshes near Fairfield. Potrero Hills and Montezuma hills are all dry and grass-covered. Some sandy areas – not formed as a result of dredging activities – were seen but they evidently supported only jackrabbits – as regards mammals. Sign here was certainly scarce. All of the area is probably flooded during extreme high-water years. The hills on each side of Napa Valley are pretty well covered with vegetation. Beginning with open grassland down low and near the mouth of the valley oak woodland (+ grass) gives way to manzanita and chamise, and finally

Hooper, 1938

Sarco Cr., ±1000 ft., 6 mi. NE Napa, Napa Co., Calif.

June 22,

Douglas fir-madrone association - as one goes up-valley + to more + more protected, cooler places. This canyon, in which we now are, may mark the southeasternmost limit (north of S.F. Bay of a redwood association. Here about me in this canyon bottom are: redwood, alder, black willow, huckleberry, madrone, poison oak, azalea, buckeye (1 or 2), hazelnut, douglas fir, live oak, bay, long-leafed (?) willow, "wire-bush", bracken. The zonation in the canyon bottom I would ~~plo~~ say is good transition. Upon the slopes in the chaparral = Upper Sonoran.

9 mi. NW Calistoga, Sonoma Co., Calif.

June 23,

Drove back to Napa, ~~thence north thru~~ St. Helena & Calistoga, north west on road to Geyserville and Healdsburg. Set out 46 traps on N-facing slope in alder, live oak, madrone, Douglas fir, redwood, deciduous oak; poison oak near stream (hillside above, for most part) Took 2 P. truei and 16. P. maniculatus. Took 5. P. maniculatus and 3 Microtus on dry, S-facing slope in grass (dry).

"deciduous oak" = _Quercus chrysolepis_

Hooper, 1938

9 mi. NW ~~NW~~ Calistoga, Sonoma Co., Calif.

June 23,

This area probably was a seepage spot now dry.

On St. Helena, as on Mt. Tamalpias, Mt. Diablo + Mt. Hamilton, the top of the mountain is evidently lower, zonally, than ~~are~~ the lower reaches. On top and down S side dense thickets of Adenostoma and Arctostaphylus exist. In sheltered canyons and on north side are: redwoods, Douglas fir, madrone, alder, bay, deciduous oak = ?, Some Coulter pine down lower and, as well, also present on floor of upper Napa Valley.

June 24: 2 mi. E Stewarts Point, Sonoma Co., Calif.

Drove north past main highway (north to Gualala) and turned east on Skaggs-Stewarts Point road. Are now camped in typical redwood association. Good redwood stands were noted when we passed over the summit to direct coastward drainage. The chapparal belts - of manzanita and Adenostoma, chiefly - were restricted to drier more exposed slopes. Last nite I set out traps in 4 situations, as follows + with these results this A.M.: 27 traps at 1/4 mi. E Stewarts Point on hillside in rye

"Rush" = sedge (<u>Carex obnupta</u>)

Hooper, 1938

June 24,

grass and under _Ceanothus_, monkey flower and bracken clumps - also few manzanita; netted 1 _Microtus_ & 4 _Peromyscus m._ Feathers took 1 _Microtus_ - 30 traps set. (2) 1 mi. E Stewarts Point from 14 traps set in marshy
← area with large bracken & rush thickets - by fallen, rotting logs took: 2 _Peromyscus maniculatus_ (on logs), 1 _Sorex pacificus_ (on wet floor) & 1 _Sorex sp._ (on wet floor); Feathers took 1 _S. palustris_, 1 _Neurotrichus_; 2 _Peromyscus_ on log from 15 traps set in marsh. (3) 14 traps set in rushes on hillside among redwoods & Douglas fir: 1 _P. maniculatus_ & 4 _Microtus_. (4) 25 traps set along roadway in redwood forest: 2 _Peromyscus maniculatus_ & 1 _Sorex_ (on mossy ground under bracken on hill); Feathers took 1 _Peromyscus m._ from 20 traps set in such a situation.

The area about camp and extending down to within ½ mi of the sea is typical redwood association. Redwoods, tan oak, madrone, douglas fir make up the mass of the superstructure; bracken, monkey flower, alder, thimbleberry compose much of the understory.

bracken = Pteris aqualina
sword fern = Polystichum munitum
"Sedges" = rushes (Juncus sp) = large clumps.
"rye grass" = Johnson grass (Holcus lanatus)
Also there in marsh:
Rumex acetocella L (sorrell or dock)

Hooper, 1938

2 mi. E Stewarts Point, Sonoma Co., Calif.

June 24,

Immediately adjoining the chaparral-grassland coastal strip is a strip of Pinus muricata — also a few P. contorta.

June 25,

3 mi. W Inverness, 300 ft., Marin Co., Calif.

Are now camped at the top of the ridge draining to the southwestward into the ocean and northeastward into Tomales Bay. Mr. Acker the caretaker and warden for the Pt. Reyes hunting club has most cordially extended us a welcome and has provided us with a bunk house in which to seek shelter from a damnably cold wind and fog. I set out 70 mouse traps in the marshy meadow on the coastal slope draining to the ocean. Vegetation here is rank, ← composed of sedges, sword fern clumps, ← rye grass in the most ~~moist~~ moist areas giving away to Ceanothus clumps on west-facing slopes and Baccharis on the road side. Along the creek are willows and occasional alder and bays. Catch: 1 Neurotrichus, 1 Sorex, 1 Reithrodontomys, 2 Peromyscus m., 2 Microtus.

Hooper, 1938

3 mi. W Inverness, 300 ft., Marin Co., Calif.

June 25,

Noted the following on drive south from Stewarts Point (which, incidentally, was via coast hwy #1): the grassy coastal strip widens as one progresses southward until at about Valley Ford (just south of Bodega) it spreads clear across to Sonoma Valley. Deeper canyons to the north of Russian River harbor dense thickets of Baccharis, poison oak, etc. + P. muricata. To the south of here no pines were noted and in the "Sonoma-Marin" gap not even any thick stands of Baccharis. Redwoods, in local stands seen as far south (before "the gap") as "just" south of Bodega. The barrier should be effective toward arboreal kinds. The hills continue to be only grass-covered and canyons with only an occasional Baccharis or Quercus until we reached Tomales. The deeper canyons leading ~~into Tomales~~ Bay from the northeast are clothed with vegetation as given for Grand Canyon - see my notes for accounts of this - notes of an earlier date.

Hooper, 1938

Olema Cr., 175 ft., 2 mi. SE Olema, Marin Co., Calif.

June 27,

Day before yesterday (June 25) left Inverness camp, drove back to main #1 hwy. near Pt. Reyes Station, thence southeast thru Olema to above-mentioned camp on Olema Cr. We are now camped in willow thickets 50 ft. from the ~~stream~~; Five Brooks is about 1/2 mi. up the creek from where we are. As shown on the Pt. Reyes U.S.G.S. sheet (ed. 1918) alongside Olema Cr. Inverness Ridge is heavily clothed with timber: dense stands of large Douglas fir, madrone, California bay, tan oak; also maple, canyon oak, poison oak, thimbleberry and 1 large redwood. Redwoods become more predominant on Pine Gulch Creek (draining into Bolinas Bay). Mr. Boyd Stewart, a Stanford graduate and a most cordial and helpful host, tells us that the above slope about 100 yrs. ago was much more open - this before the Douglas firs & Redwoods were at all cut -. The open meadow-like slopes are now filled in by young Douglas fir, madrone, bay. Redwoods did not come back

Hooper, 1938

Olema Cr., 175 ft., 2 mi. SE Olema, Marin Co., Calif.

June 27,

Last night I set 60 traps on the grass-covered SW-facing slope. This am found 2 Peromyscus m. and many sprung traps. I had sceptically sought for Kangaroo rats.

As noted above, the northeast slopes bounding Olema Cr. are grass-covered and - as usual for this type of country all over the Bay region - grazed by cattle. In the canyons are growths as on the slopes across the creek (Douglas fir, etc.), the density of the growths varying with the depth, steepness (in other words degree of protection) of the canyon; the differ from those on the NE-facing slopes in having more poison oak and live oak. On the NE-facing slopes of Bolinas Ridge the same dense stands are found as on Inverness Ridge. The forests are advancing up over both ridges, young trees and other invaders (blackberry & Baccharis) noted on the tops of both ridges. Bolinas Ridge, Mr. Stewart tells me has never been cut.

Hooper, 1938

Olema Cr., 175 ft., 2 mi SE Olema, Marin Co., Calif.

June 27,

Mr. Stewart leases grazing rights from the Marin Country Club people. They own most of the country on Inverness Ridge extending from Olema south most of the distance toward Woodville - exactly how far I don't know; their land extends from the west side of Olema Creek to the Ocean. This area, during most of the year is a reserve for most wild animals. Of course game birds are taken in season and probably some predators are removed, however because of the comparatively few members of the club (about 5, according to Stewart) and because the area is not traversed by any public road ~~other~~ wild life can hold forth unusually unmolested - for the area about the Bay.

Mr. Stewart allowed us to accompany him yesterday over to the Drakes Bay side of this property he leases. The road followed turned off the main highway at Five Brooks. Passing thru two locked gates we drove about 4 mi. + by road (1½ mi. map distance) SW

Hooper, 1938

Olema Cr., 175 ft., 2 mi. SE Olema, Marin Co., Calif

June 27,

of Five Brooks. Up to the summit of the ridge the vegetation cover is as described before - large Douglas fir predominating. At the summit there is an abrupt break to mixed grassland - on some more wind-blown slopes and on meadowlands - and chaparral. The latter predominated by far above the former at least to within 1½ or 2 miles from the coast. Perhaps it continued on to the coast. The thickets were composed of Baccharis, poison oak, blackberry, wild rose, thimble berry, salmonberry, poison hemlock, sword fern; an occasional live oak or Bishop pine dotted the area. Several lakes with no outlet, and several marshy areas were noted. ϕ

I set 4 mouse traps in the chaparral which netted this morning: 1 chipmunk, 2 Microtus and 1 Peromyscus maniculatus. 30 traps set in a marsh, with a sedge as the dominant plant, netted 8 Microtus 2 Peromyscus m. and 1 song sparrow. 4 Aplodontia sets yielded nothing but 1 sprung trap.

Hooper, 1938

Berkeley, Alameda Co., Calif.

June 28,

Left camp on Stewart's place yesterday about 2 and drove along coast highway #1 thru Stinson Beach, to Manzanita where we rented a tent house in an auto court for the night. I set out 50 traps in Salicornia in the marshes opposite Larkspur where I set before. Because of the extremely high tide I caught no mammals – only 1 song sparrow; the traps were floating in many sets. Twenty-seven traps set in rye grass near the edge of the marsh at the mouth of Elk Valley yielded nothing. I drove up Elk Valley to within ½ mi. of its mouth on the ocean side. The entire valley is grazed by dairy cattle; nowhere did I see any likely Zapus country. At the sea coast mouth (Tennessee Cove) there appeared (from ½ mi. away) to be a marshy area grown to sedges. However this, too, contained grazing cattle. This morning, after gathering our mammoth catches (!!) we drove over Richmond - San Raphael Ferry. Distance for trip = 490 mi.

Hooper,
1938

Berkeley Alameda Co., Calif.

June 28,

Route covered in trip north of San Francisco Bay thru counties bordering the bay. June 21-June 28, 1938.

Plants collected on trip north of S. F. Bay, June 21 - June 28, 1938:

In marsh at Inverness camp (ie, 3 mi. W):
Sword fern (Polystichum munitum) - clumps
Rush (Juncus effusus) - clumps - long spikes
Johnson grass (Holcus ~~maculatum~~ lanatus) - more open areas
Bracken (Pteris aquolina) - some, here and there
Sorrell or Dock (Rumex acetocella) - " " " "
Poison hemlock (Conium maculatum) on drier, higher ground

vicinity of Stewarts Point, Sonoma Co.:
Sedge (Carex obnupta)
(Salix sp.) Willow - tomentose, white
Deerweed (Lotus scoparius)
Everlasting flower (Gnaphalium microcephalum)

Hooper.
1938

<u>2 mi. S. Saratoga, 2000 ft., Santa Clara Co., Calif.</u>

July 9.

Left Berkeley July 7 at 2: P.M., picked up Dawson Feathers in San Leandro, drove across San Mateo Bridge to Skyline Blvd, thence north to Sharp Park road to coast; thru Sharp Park and Moss Beach to first camp at <u>N side Halfmoon Bay, 1/2 mi. N Pillar Pt., San Mateo Co.</u>, Calif. After 1 nite's trapping there drove on thru Halfmoon Bay (town) San Gregorio, Pescadero to Gazos Cr. road (about 5 mi. S Pescadero) thence over this road to Big Basin, up to Skyline Blvd. and Saratoga (Santa Clara Co.); camp now on property of R.R. Stewart. Now to go back a bit: Stopped at several places along coast highway (#1) to look for Aplodontia burrows: near Montara, Purissima, Gazos Cr. Found country likely (vegetation favorable) but no burrows. Open grasslands not so abundant as north of bay from Marin to Sonoma Co. along coast. Chaparral areas more numerous, canyons deeper; much of the tillable ground (or <u>all</u> of it) grown to artichokes and peas - little pasturage. For vegetation types see U.S.F.S. and U.C. Experimental Station "Type map" for San Mateo

Oenothera *hookeri* also noted along coast in more moist areas.

July 9,

quadrangle. The coniferal belt extends coastward to within 4-8 mi. of the coast on the route we traveled. It comes closer to the coastline as one progresses southward toward Santa Cruz. In Gazos Cr., for example, we came to Douglas fir (as we went up the creek) about 2 mi. from the coast; these, of course, were in the canyon bottom. About 5 mi up the creek there were good stands of Doug fir and (redwood association) redwoods on protected slopes as well as in the canyon bottom. Chaparral stands were absent (except in burned over areas) 7 mi from the coast. On the Sharp Park - Skyline Blvd. road there were no conifers - just grassland and chaparall.

Camp on site of July 7 on N ~~side~~ of Halfmoon Bay was made at the edge of a permanent, fresh water marsh ½ mi. N Pillar Pt. The marsh is about 6 acres in extent; vegetation here = Typha, Carex, Juncus, Salix, Rumex, Conium, Mimulus (~~or Diplacus?~~). Some of it resembles the marshes W of Inverness on Pt. Reyes Rd. where Zapus have been taken. I set traps as follows: 13 on hillside in yellow

"yellow-button plant" = Cotula coronopifolia

Hooper, 1938

2 mi. S Saratoga, 2000 ft., Santa Clara Co., Calif.

July 7,

bush lupine netted 3 Peromyscus maniculatus and 2 Mus; 16 set on same hill (E-facing slope) caught 2 Peromyscus m., 1 Reithrodontomys, and 1 Microtus. 21 along small stream (1 ft. wide, 1 in. deep) in dog fennel, daisy and yellow-button plant caught nothing; 75 in marshy area mentioned above caught 2 Sorex, 15 Microtus, 4 Reithrodontomys. Feathers set 85 traps in the marsh to get: 2 Mus, 2 Reithros, 14 Microtus, and 6 Peromyscus m.; He also caught 1 norway rat and 3 brush rabbits in 5 steel sets.

In many places in the Santa Cruz Mountains we saw large areas (entire mountainsides extending for miles) grown to chaparral (Adenostema, Baccharis, Ceanothus, etc.) which we thought should be covered with coniferous forests. In many instances this chaparral evidently was the "invader" after the areas had been burned over, or logged first then burned over; dead spars could be seen. The succession of animal life accompanying this should be kept in mind.

Rhamnus californica
Ceanothus thyrsiflorus
Sphacele calycina
Arctostaphylus glandulosa

"grass" = _Bromus_ and _Avena_ chiefly.

Hooper, 1938

2 mi. S Saratoga, 2000 ft., Santa Clara Co., Calif.

July 9,

Our camp here 2 mi. S Saratoga is on the high ridge lying to the South of that town and bounding Santa Clara Valley on the west at this point. This property owned by Mr. ~~Steward~~ Stuart is that which Feathers watched over as caretaker several years ago. Zonation here is Upper Sonoran grading into a Transition in protected canyons where stands of Douglas fir are found. Around camp here — typical for much of such NE-facing slopes on the SW side of Santa Clara Valley — are madrone, bay, poison oak, live oak, thimbleberry (little). Around on the Southwest-facing slopes, most exposed, is Adenostema and Baccharis. On the crests of ridges and hard, rocky soil is grass and Yerba Santa. Thus here within a circle of 100 yds. radius are habitats for: (1) heteromyids (kangaroo rats + pocket mice and jackrabbits; (2) wood rat, P. truei, P. californicus, wood rat + chipmunk. Old apple and cherry orchards, now allowed to "go back to primitive" offer additional food for kangaroo rats + the three Peromyscus

Hooper, 1938 — 2 mi. S Saratoga, 2000 ft., Santa Clara Co., Calif.

July 9,

I set 75 mouse traps + 6 rat traps in an old apple orchard and along the rocky road thru bay-live oak-poison oak, Baccharis, and Adenostoma. Took: 9 Peromyscus californicus, 3 P. truei, 6 P. maniculatus and 6 Dipodomys (4 D. venustus? and 2 D. heermanni?).

Feathers set 88 traps in similar situations but more in orchards undergrown with grass (oats, foxtail) and took: 10 P. maniculatus, 1 Peromyscus californicus and 8 Dipodomys (of 2 kinds?).

July 10,

Set out 50 mouse traps last nite on top of a ridge ½ mi. S of camp in an old grape orchard. Wild oats were thick and about 2 ft. high between the grape vines. Burrows of Kangaroo rat, apparently, large and with no dirt before them and Peromyscus m. - smaller and with dirt before them - were numerous, particularly near the grape clumps. Also set 8 rat traps about houses here at camp. Adenostoma, poison oak and yerba santa bordered the above orchard. Found this a.m.: 13 Peromyscus m.,

Mt. Mahogany = *Cercocarpus betuloides*
manzanita = *Arctostaphylus glandulosa*

also brome grass (*Bromus*) here →.
Found in pockets of *Dipodomys* and *Perognathus* an
fruiting structures at mouth of burrows of
Peromyscus m.

Hooper, 1938

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.

July 10,

1 Peromyscus californicus, 2 P. truei, 1 Reithrodontomys and 2 Perognathus c. Feathers got 1 pocket mouse and a flock of "P. m.s" in his traps.

Noted about camp additional chaparral: Quercus dumosa, ~~and~~ toyon, ~~m~~ mountain mahogany, pitcher sage, Arctostaphylus.

Killed 1 large rattlesnake today.

July 11,

Set 50 traps in another grape orchard with many open burrows and much wild oats. Took this morning: 32 P. maniculatus, 1 P. truei, 1 P. californicus and a tail of a Perognathus californicus. This high "grass" habitat seems to ~~be the~~ be where the most "P. m's." are.

Berkeley, Alameda Co., Calif.

July 13.

Left camp near Saratoga at noon on July 11, drove across Santa Clara Valley to Mt. Hamilton summit, then down north side to place where I camped with T. L. Maslin earlier in the year. This camp is on Isabel Cr., 2200 ft., 3 mi NE summit Mt. Hamilton, Santa Clara Co.

M.H. Mahogany = *Cercocarpus betuloides*
Ceanothus " = *C. cuneatus*

Hooper, 1938

Berkeley, Alameda Co., Calif.

July 13,

We drove on east about 5 mi. (on road to Livermore) looking for good pocket mouse country (Artemesia and rocks) but found nothing better than that on most exposed slopes immediately north of Isabel Cr. I was mistaken in thinking I had seen artemesia in a rocky canyon about 5 mi. east of the above camp in with the junipers which are found there.

I set 31 traps in a SW-facing slope among grass and near or under mountain mahogany, Ceanothus, a dwarf Artemesia? (± 10 in. high) and. A few ground squirrels were seen here and some burrows apparently of Dipodomys. From these traps:
1 Dipodomys h., 1 Peromyscus m., 1 Perognathus californicus, 1 P. truei. In similar situations but with more traps in dried "graminines" ± 1½ ft. high from 60 traps Feathers took 1 Perognathus c. and about (!!) 10 P. maniculatus.
14 traps set along the edge of brush (= Adenostema, Ceanothus cuneatus, Poison oak, and fallen coulter pine debris netted 1 Dipodomys (from holes in sandy ground near brush) 2 Peromyscus californicus
2 P. truei.

Hooper,
1938

Berkeley, Alameda Co., Calif.

June 13,

I also set 50 traps among poison oak, california bay, ceanothus, and yellow pine; substrate mostly rocky (rocks ranging from 6 in. diameter to large boulders) - like a talus slope in the ~~Sierra~~ Nevada, but rocks rounded, water-worn. Many of the rocks covered with moss, now mostly dry, and area giving evidence of considerable down-wash of water in wet season. Took from traps: 7 P. truei + 2 P. californicus. We estimated that there were 125 yellow pines (mostly large trees of about 3 ft. diam.) in ~~the~~ an area of about 20 acres. They are not in pure thick stands as a rule but mixed with P. coulteri and, less often, with P. sabiniana. Vegetation bordering or among them: Calif. bay, ceanothus, manzanita, madrone, adenostema, coulter pine, digger pine. Some of the area seems excellent for chipmunk subsistence and possibly also for gray squirrel, but none was seen.

After picking up traps drove back to Berkeley, arriving here at about 11:30 A.M.

Hooper,
1938

Berkeley, Alameda Co., Calif.

July 13,

Map showing route followed for trip of July 7 thru 12 in San Mateo and Santa Clara Counties. Camps made at or collecting localities:

1. N side Halfmoon Bay, 1/2 mi. N Pillar Pt., San Mateo Co.
2. 2 mi. SW Saratoga, 2000 ft., Santa Clara Co.
3. Halls Valley, Mt. Hamilton, Santa Clara Co.
4. Isabel Cr., 2200 ft., 3 mi. NE summit Mt. Hamilton, Santa Clara Co.
5. 2 1/2 mi. NE summit Mt. Hamilton, Santa Clara Co.

Hooper,
1938

Species accounts of only native rodent kinds found in counties bordering on San Francisco Bay.

E. T. Hooper.
July 13, 1938

Species accounts
San Francisco Bay region counties
Dec. 15, 1936 — June 12, 1938

Hooper

Citellus douglasii

Noted workings on exposed "overgrazed" hillsides along the "Redwood Highway" from just north (± 1 mi.) of San Rafael up to Petaluma. Seen within 200 yds. of tide lands near Petaluma.

Account of trip of June 21 – June 28, 1938, north of San Francisco Bay in counties touching on the bay:

Passing over Antioch Bridge thru Rio Vista to Fairfield: I noted no squirrels until about Denverton. One picked up on the road about 3 mi. SE Fairfield was put up by D. Feathers. The country south of Cordelia out toward Benicia probably supports these animals. Montezuma Hills also probably harbors them. No signs of the animals were noted on embankments on the N side of Antioch Bridge. All the ground around and on Sherman Island up to Rio Vista is under cultivation – asparagus mostly – and probably does not harbor squirrels. Hills not having too high grass and are above high water level are potential ground squirrel areas. None noted in redwoods or in coastal grassland belt – ie., grassy hills bordering the ocean and to ½ mi. to 3 mi. back.

Hooper

Citellus douglasii

As one progresses southward (from Stewarts Point, Sonoma Co., in my instance) the squirrels press further coastward. They have been noted at Petaluma and other more coastward points - also reported from Sausalito.

Hooper

Citellus beecheyi

2½ mi. S Antioch, 250 ft., Contra Costa Co., Calif.

Mar. 7, 1937

Saw large, adult (evidently) squirrels running over the grassy hillside.

Feb 28, 1937

1 mi. W Avon (salt marsh) Contra Costa Co.

Saw workings on ditch or slough bank ~~to~~ the slough bisecting Salicornia fields. Also near railroad embankment (±50 ft.)

Arroyo Mocho, Santa Clara + Alameda counties.

Jan. 5, 1938

Saw three young animals at as many places along the creek from about 2800 feet down to near the mouth in Livermore Valley.

S side Carquinez Straits, vicinity of Crockett, Contra Costa County.

June 21,

Hunted squirrels on the hills from just west of the bridge (Carquinez) east to a bit over 1 mi E of Crockett. Hills here grass-covered - grass in most places ± 2 ft. tall. Saw no squirrels or burrows in this tall grass. Only in areas completely devoid of vegetation or almost denuded intermingled with grassy areas were there squirrels. All grass (= gramineae) is now quite dead. Saw 2 squirrels just W of the bridge. At least

Citellus beecheyi

Hooper

1 was *beecheyi*, as regards dorsal coloration. Saw many (±10), shot three (1 juv.) at 1 mi. E SE Crockett. All of these were *beecheyi*. They were seen intermittently all thru area traveled yesterday – anywhere there were exposed, warm slopes, grass not too high; both in dry, hard soil and ~~in~~ ~~sandy~~ sandy soil (near Canada de los Poblanos and Briones Valley – on Marsh Cr. Road) and where there was not a heavy growth of any vegetation (trees, shrubs or grass).

= douglasii. On north side found a ground squirrel dead on road; hit by car – this about 3 mi. E Fairfield. Noted none on the island (Sherman). Probably they don't range quite ~~to~~ the marshes on the north side of the bay. Wheat field margins (on rolling hills) evidently could support them.

July 7-12, 1938

A resident of region near Tunitas Cr., San Mateo Co., said there were a few of this species in the hills back (± 1½ mi.) from the ocean. Saw none in Santa Cruz Mountains. Seen to summit of Mt. ~~Diablo~~ Hamilton; wherever not brushy but grassland.

Hooper

Eutamias t. ochrogenys

2 mi. E Stewarts Point, Sonoma Co., Calif.
Saw 1 run across the road in typical redwood association. Two kept in a cage at the general store in Stewarts Point apparently were of this kind. They can not be abundant in the redwoods, for during a total of about 4 hrs. hunting and setting and retrieving traps we saw none.

"mint" = *Sphacele calycina* = "Pitcher sage"
Ceanothus = *C. thyrsiflorus*

Hooper

Eutamias merriami

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.
July 8 – 11, 1938

These animals are abundant about our camp here. We have taken 12 by trapping or shooting. Definitely a brush-inhabiting kind they are found in a mixed chaparral + tree growth here composed of: Calif. bay, live oak, scrub oak, poison oak, manzanita, baccharis, mountain mahogany, blackberry, yerba santa, ceanothus and some mint(?). Old apple trees that have been surrounded by this brush served as a focal food point for them. They were also seen feeding on this mint(?) and in blackberry brambles. They were not seen in pure stands of Adenostoma, though in some stands the plants were 8 ~~10~~ ft. high and thickly placed.

Hooper

Eutamias sonomae

vicinity of Stewarts Point, Sonoma Co., Calif.
June 24, 1938

Feathers & I neither saw nor definitely heard any of this species. However at the General Store in Stewarts Point we were informed that "chipmunks are very abundant at the indian reservation up at the summit" (= about 10 mi. E Stewarts Point on Skaggs Spring road). Since the same person said that "they are only a few up here in the redwoods" (= region about our camp - 2 mi. E Stewarts Point) and since we saw two, perhaps there is something to his ~~statements~~. The immediate area about the reservation settlement is partially grown to chaparral; to the west of the clearing are large stands of redwoods - ie, that association; to the east its semi-brushy forestland, ie. brush on some slopes, forest on others.

Hooper

Eutamias alleni

June 25, 1938

3 mi. W Inverness, 300 ft., Marin Co., Calif.
I shot one from the dead limbs of a fallen bishop pine on a sunny hillside, 25 ft. above a flowing spring – this 100 ft. from the caretakers cabins at the top of the ridge on Inverness–Pt. Reyes road. Mr. Acker, the caretaker, reports them abundant about camp. I saw 1 more and heard 2 others in addition to the one shot. Feathers saw one. All in brush or fallen trees.

Olema Cr., 175 ft., 2 mi. SE Olema, Marin Co., Calif.

June 25, 1938

Shot one while I was eating lunch in camp. Animal was sitting about 4 ft. off the ground in a willow clump 100 ft. from Olema Cr. proper. This was the only 1 seen or heard about camp.

1½ mi. SW Five Brooks, Inverness Ridge, Marin Co., Calif. June 27, 1938

Took 1 in mouse trap set on ground in heavy chaparral (Baccharis, Rhus diversiloba, Rhubus, blackberry, poison hemlock, alder, and an occasional live oak.

Hooper
1938

Perognathus californicus

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.
July 8-11, 1938

408 trap nites have produced only 4 of this kind here. These were caught with D. venustus in an old apple and plum orchard with grass 6 in - 2 ft. in between trees.

~~Isabel~~ Cr., 2200 ft., 3 mi. ~~NW~~ NE summit Mt. Hamilton, Santa Clara Co., Calif.
July 12, 1938

Feathers took 1 in 60 traps set on SW-facing slope; slope almost barren but with occasional patches of small dry grass and an artemesia or mt. mahogany plant.

Hooper

Perognathus inornatus

vicinity of Oakley, Contra Costa Co., Calif.

June 21, 1938

Along the Marsh Creek Road just before it leaves the foothills to emit onto San Joaquin Valley floor and around Oakley the ~~there~~ substrate is predominantly sandy - some even driftable, especially after ~~having~~ been plowed or disturbed in some such way. 79 mouse traps set ~~in~~ this sandy ground in an uncleared area grown to Adenostema chiefly, with a few oaks + clumps of Artemesia netted nothing.

So far the only record of these small pocket mice is from owl pellets. See article in Condor by D. Stoner.

Hooper

Dipodomys heermanni

9 mi. NW Calistoga, Sonoma Co., Calif.
June 22, 1938

Feathers took one specimen on a rather rocky S-facing hillside. grass and a "deciduous oak = vegetation present.

Hooper, 1938

Dipodomys venustus

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.

July 8–11, 1938

Though more have been taken by Feathers previously here, these are those for which I have definite trap site records:

163 trap sites in old apple and plum orchard and along dusty road netted 14.

Feathers took 1 in 60 traps set in a grape vineyard overgrown with 1½ ft.+ dried grass; this 1 was probably taken when the grass was not this high.

Their burrows are abundant in roads and trails, along cut banks, on top of ridges where the ground is not too hard and grass not high.

3 mi. NE summit Mt. Hamilton, Isabel Cr., 2200 ft., Santa Clara Co., Calif.

July 12,

2 taken in 45 traps. 1 caught on sandy flood ~~plat of~~ plain creek near (3 ft.) chaparral composed of Ceanothus cuneatus chiefly. The other caught on dry, SW-facing slope under C. cuneatus or Cercocarpus betuloides, some dried grass.

Hooper

Reithrodontomys halicoetes

1 mi. W Avon (salt marsh), Contra Costa Co., Calif.

Feb. 28, 1937

Traps baited with oatmeal and placed in Microtus runways yielded at least 4 R. halicoetes. These were found in the same immediate area with R. megalotis. In at least one instance one trap contained a megalotis and the next trap, about ten paces away, held a halicoetes. As I look at the skins of harvest mice all collected in the same marsh and in the same trap line, it seems to me that 4 are R. megalotis and 4 R. halicoetes. On the same line were caught Rhus [illegible], Sorex sp.? and Microtus californicus.

St. Vincent, salt marsh, 5 mi. N San Rafael, Marin Co.

May 25,

Caught 1, in 5 traps set in runways in Salicornia. This one was caught where the pickle weed was thick and the ground moist. All but about 3 of the other traps were set where one or the other of the above "factors" was not satisfied.

Hooper

Reithrodontomys raviventris

1 mi. E mouth San Pablo Cr. (salt marsh), Contra Costa Co., Calif.

Jan. 13, 1937

1 specimen taken on the same trap line with R. megalotis in Salicornia. R. megalotis caught: 4. Caught in meadow mouse runway.

Melrose Marsh, ½ mi. E Bay Farm Island Alameda Co., Calif.

3 caught in snap traps, baited with oatmeal, placed in Microtus runs along more elevated ridges (e.g. ditch bank). 1 taken in a "can" live trap and brought to the laboratory for study alive. The only other animals taken at this time were 6 house mice.

Hooper

Reithrodontomys m. longicaudus

1 mi. E mouth San Pablo Cr. (salt marsh), Contra Costa Co., Calif.

Oct. 25, 1936

4 specimens taken in live ("Benson") traps placed 6 ft. apart in Microtus runs chiefly, + in Salicornia.

Jan. 13, 1937

4 specimens taken in snap traps baited with oatmeal and placed about 10 paces apart in Microtus runs. 1 R. raviventris taken in same trap line and in same habitat (Salicornia).

Giant (salt marsh), Contra Costa Co., Calif.

Feb. 15, 1937

4 animals taken (1 in can trap - retained alive; 3 in snap traps) in Microtus runways in Salicornia. No other kinds of harvest mice taken here; house mice and meadow mice were taken.

1 mi. W Avon (salt marsh), Contra Costa Co., Calif.

Feb. 28, 1937

4 specimens taken in snap traps baited with oatmeal and placed in Microtus runs in Salicornia. Caught on same trap line (and in at least one instance

Hooper

Reithrodontomys m. longicaudus

1 mi. W Avon (salt marsh), Contra Costa Co.
Feb. 28, 1937
in alternate traps) with R. halicoetes
Bivalve, 2 mi. N Pt. Reyes Station, Marin Co., Calif.
Mar. 28, 1937   1 taken (35 traps) in
meadow mouse runway in Salicornia not over
15 ft. from Baccharis, Rhus diversiloba-
covered hillside.
3 mi. W Inverness, Marin Co., Calif., June 25,
1938: 1 taken in 70 traps set in
marsh along Pt. Reyes road. In all of
trip north of the Bay this was only
harvest mouse taken. See itinerary
of route covered.
N side Halfmoon Bay, 1/2 mi. N Pillar Pt., San
Mateo Co., Calif.
July 8,
3 taken in 160 traps set in fresh water
marsh among Carex, Juncus, Salix, Baccharis,
Rumex, Conium, Mimulus.
1 from 16 traps set on E-facing slope in
dried annuals (grass + composites)
From 110 traps set in old grape orchard
on a hilltop in ±1 1/2 ft. dried grass took 1.

Hooper, 1937

Notes on Captive Reithrodontomys
Berkeley, Alameda Co., Calif.

Mar. 10, 1937

Bar between 1 r ♂ and 2 m ♀ let down tonight. The two are now in the same cage. No antagonism

Mar. 11,

Still no antagonism. Both in same cotton.

April 6,

2 m ♀ and 1 r ♂ now separated into adjoining cages. No signs of antagonism noted during period when the two were together. One thing noted tonight when I was cleaning the cages may be of significance. *Reithrodontomys megalotis* are much more active than *R. raviventris* – this has been evident ever since both kinds were confined; the former climbs and jumps about the cage avidly; the latter seldom climbs up on the wire sides of the cage and has never been observed to jump to the side or top of the cage as the *megalotis* does. Well, anyway, tonight the *megalotis*, as usual, could not well be cornered – it jumped and ran about on the bottom and sides of the cage attempting to escape. The *raviventris* on the other hand seldom ran on the sides of the cage (up off the substrate, thus) and attempted to burrow in the sawdust of the cage floor. This was a means of

[illegible]

Hooper, 1937

Notes on captive *Reithrodontomys*
Berkeley, Alameda Co., Calif.

April 6,

escape not seen before in *Reithrodontomys*. This might indicate that *raviventris* seeks retreat in the ground (it lives in *Salicornia* — which offers little climbable structure) while the *megalotis* kind may attempt to escape up off the ground or by running and jumping in its chaparral and grass habitat.

April 7,

Found the *raviventris* ♂ back in the cage with the *megalotis* ♀. The former went back thru the hole in the partition to its own cage when I started to catch it. The hole is patched now.
Dave Johnson brot in a live *Onychomys* last nite. It is confined in the third section of the cage.

Hooper

Peromyscus maniculatus

2½ mi. S Antioch, 250 ft., Contra Costa Co., Calif.
Mar. 7, 1937
Caught 1 specimen in 20 mouse traps set at a average distance of 3 paces apart, on a grassy hilltop ("sheeped"), at the mouths of old (but seemingly used ground squirrel burrows). Traps baited with oatmeal. Zone Upper Sonoran.

1 mi. S Antioch, ~~250~~ 100 ft., Contra Costa Co.
Mar. 7, 1937
Caught 21 P. m. out of 48 traps set in wheat stubble ~~and~~, along a stubble-lined stream running through the field and along an east-facing slope - still in stubble. Caught 2 animals in 1 trap. Traps baited with oatmeal.

SW side Tomales Bay, opposite Pt. Reyes Station, Marin Co., Calif.
Mar. 26, 1937 5 (3 juv.) taken in 25 traps set in *Salicornia* and *Triglochin* in runways not over 100 ft. from wooded (Transition-humid) hillside. These caught in pure *Salicornia*.

Inverness, 100 ft., Marin Co., Calif.
Mar. 27, 1937 4 taken in 20 traps set in moist wood - under bay and alder trees, ferns - on NW facing slope; soil very wet, black; leaf litter abundant.

Hooper

Peromyscus maniculatus

9 mi. NW Calistoga, Sonoma Co.
June 22,

Took 5 in 20 traps (+ 3 Microtus) set in dry grass on SE-facing exposed slope. The area had evidently been a seepage area - now dried. On N-facing slope (steep) under Douglas fir, live oak, alder and along the stream (few redwoods also present took 16 from 46 traps. This animal is certainly the mouse of the forest floor.

June 22-28, 1938 Stewarts Point, Sonoma Co. thru several camps to Manzanita, salt marshes, Marin Co. 4 taken in 27 traps on SW-facing slope 1/4 mi. from Ocean (Stewarts Point) in mixed, semi-open association: Ceanothus, monkey flower, bracken, Baccharis and grass; ~~trees~~ shrubs about 8 ft. apart. 2 taken from 4 traps set on fallen logs and among debris near swampy area grown to tall sword fern + sedges; these set on dry ground; where ground wet → no Peromyscus. This + below = 2 mi. E Stewarts Point. 1 in 14 set in rushes & sedges in clearing in redwood forest. 2 in 25 set along roadway in redwood forest.

Hooper

Peromyscus maniculatus

3 mi. W Inverness, Marin Co. June 25, 1938; 2 in 70 traps, only a few of which were set on dry ground; the rest set in marshy area along the Pt. Reyes road.

2 mi. SE Olema, Marin Co., June 26, 1938; 60 traps set on exposed SW-facing slope in grazed grass and at borders of rocks with live oak and poison oak thickets near netted 2 animals - these caught at bases of rocks. Other traps out in grass sprung - probably by Peromyscus. No trap over 100 yds from oak- & brush-studded canyon.

1½ mi. SW Five Brooks, Marin Co., June 27, 1938; 1 in 4 traps set in heavy Baccharis, poison oak, et all. 2 in 30 traps set in marsh surrounded by Baccharis; these, as usual, taken on dry ground at edge of marsh.

Manzanita, salt marsh, Marin Co. June 28

None taken in marsh.

Hooper,
1938

Peromyscus maniculatus

N side Halfmoon Bay, 1/2 mi. N Pillar Pt., Santa Mateo Co., Calif.

July 8, 1938

3 in 13 traps set at edge of yellow lupin thicket surrounded by pea (garden) patches; this on 6-facing slope. 2 in 16 traps set on same hill but in "graminines" ± 1 ft. high. 75 set in marshy area (fresh to salt) netted nothing. Feathers set 85 in this same marsh but some traps placed next to a sugar beet field and in wild oats; he took 6 of this species.

2 mi. S Saratoga, 2000 ft., Santa Clara Co., Calif.

July 9-11, 1938

1. 6 in 75 traps set in old apple + plum orchard with dried grass about 1½ ft. high. Feathers took 10 in 75 traps set in similar situation.
2. 45 in 110 traps set in old grape orchard with grass 1-2 ft. high. These animals undoubtedly are more abundant where the grass is higher. Also their burrows, or those inhabited by them most often have loose dirt before them.

3 mi. NE summit Mt. Hamilton, Santa Clara Co.

July 12,

Here in high grass (mostly wild oats) they are the most common kind; not taken in dense brush with P. truei + P. californicus.

Hooper,

Peromyscus truei

Isabel Cr., 2200 ft., Santa Clara Co., Calif.
Jan. 5, 1938 33 taken
(with 5 P. californicus) in 100 mouse traps ~~set~~ in ~~Aden~~ Adenostoma, Quercus dumosa, and Ceanothus sp.? and under logs.

9 mi. NW Calistoga, Sonoma Co.
June 22,

1 taken in 46 traps (+ 16 P. maniculatus) set on forest floor (live oak, deciduous oak = ?, Doug fir, madrone, alder). This one taken at base of small Douglas fir in grass, on dry ground, rather open, near rocky outcrop (about 75 ft.).

2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif.
July 9-11, 1938

1. 3 taken in 81 traps set (1) in an old appeared plum orchard with poison oak, adenostoma and yerba santa thickets bordering and (2) along road in poison oak, calif. bay, scrub oak, ceanothus, madrone, manzanita.
2. 2 in ~~110~~ 110 traps set on hilltop in dry grass in grape orchard.

2½-3 mi. NE summit Mt. Hamilton, Santa Clara Co., Calif. July 12, 1938

7 from 50 traps set among boulders on NE-facing slope among poison oak, bay, ceanothus, yellow pine.
2 from 14 traps set along edge of brush (= Adenostoma, Ceanothus cuneatus, poison

Hooper

Peromyscus truei

2½-3 mi. NE summit Mt. Hamilton, Santa Clara Co., Calif.

July 12,

oak and fallen Coulter pine debris.
1 young dwind from 31 traps on SW facing slope;
hillside open, dried grass + scattered
mountain mahogany and a low lying
shrub like a dwarf artemesia.

Hooper

Peromyscus californicus

Isabel Cr., 2200 ft., Santa Clara Co., Calif. Jan. 5, 1938 5 taken (with 33 P. truei) in 100 mouse traps set in Adenostoma, Ceanothus sp.? and Quercus dumosa. Most were taken under logs, but "right beside" traps holding P. truei.

2 mi. S Saratoga, 2000 ft., Santa Clara Co., Calif. July 9-12, 1938

9 taken in 81 traps set in old plum and apple orchard and along road in scrub oak, calif. bay, live oak, poison oak, madrone, manzanita, toyon; debris under trees abundant. 110 traps set in old grape orchard with adenostoma, poison oak, yerba santa bordering it yielded 2; these caught near border of orchard.

Isabel Cr., ~~2200~~ ft. ~~3~~ mi. NE summit Mt. Hamilton, Santa Clara Co. July 12, 1938

2 taken in 14 traps set ~~near~~ at edge of brush.

2½ mi. NE summit Mt. Hamilton, Santa Clara Co., Calif. July 12,

2 taken in 50 traps set among rocks in yellow pine, calif. bay, poison oak; cover not dense; rocks evidently supplying hiding places.

Hooper

Neotoma fuscipes

Grand Canyon, 2 mi. N of Pt. Reyes Station, Marin Co., Calif.
Mar. 28, 1937 Numerous huts seen ~~on~~ SE facing hillside (also undoubtedly on opposite hillside where vegetation is more dense) under Calif. bay trees & in poison oak.

Isabel Cr., 2200 ft., Santa Clara Co.
Jan. 5, 1938
Droppings abundant in rock ledges; no huts seen.

Account of trip of June 21-28, 1938, in counties to north of and touching on the bay: Found abundant in mixed Douglas fir, madrone, poison oak & bay along Inverness Ridge - particularly along lower reaches near Olema Cr. In purer stands of Doug. fir higher on ridge uncommon. Uncommon in redwood association near Stewarts Point, Sonoma Co., tho found in ~~[illegible]~~ semi-open areas - as result of burning of timber or clearing of land. Absent in Sonoma gap - possibly occasional "straggler" with "straggler" cover (vegetational) in the gap.

2 mi. NW Saratoga, 2000 ft., Santa Clara Co., Calif.
July 8-11, 1938
Abundant here about camp; nests plentiful. Festhers has taken 5 from forest-chaparral or from outhouses about camp.

Hooper

Neotoma fuscipes

Berkeley, Alameda Co., Calif.

July 27, 1938

An old letter, dated May 16, 1935, I have just dug out of my files includes information of interest. The letter is from D. A. Feathers, a competent, experienced and careful observer and student of natural history, who was writing from "John Brown Lodge", 2 mi. SW Saratoga, 2000 ft., Santa Clara Co., Calif. The letter reads: "I noticed in Feb. something which might be of interest to you. - - - - - Several times during that month I noticed dead Neotoma fuscipes lying about on the ground. I examined several, but found no signs of any injuries on their bodies. All those found were in laurel [Umbellularia californica] woods, and generally it seemed, after severe rains."

Microtus californicus

Hooper

1 mi. E mouth San Pablo Cr. (salt marsh), Contra Costa Co., Calif.
Oct. 25, 1936

Out of 100 "Benson" live traps placed in runways in Salicornia caught 1 Microtus. Bait oatmeal.

Giant (salt marsh), Contra Costa Co., Calif.
Feb. 15, 1937

Took 3 specimens from "snap" traps baited with oatmeal and placed in runways in Salicornia. Runways exceedingly abundant but many holes filled with water - probably due to previous long, heavy rains. R. megalotis and M. musculus also taken.

1 mi. W Avon (salt marsh), Contra Costa Co., Calif.
Feb. 28, 1937

2 taken in Typha, 2 in Salicornia. Runways about as abundant as at Giant marshes. Some holes filled with water just as at Giant. No embryos found to date (Oct. 25, 1936 - Feb. 28, 1937).

Hooper

Microtus californicus

Pt. Reyes Station, salt marsh, Marin Co., Calif.
Mar. 26, 1937 7 taken in 35 traps set in Salicornia, sedge ? and arrow grass (Triglochin) in runways not over 100 ft. from chaparral covered hillside. Substrate very wet - due to recent extensive + heavy rains.

SW side Tomales Bay, opposite Pt. Reyes Station.
Mar. 26, 1937 1 taken in 25 traps set in Salicornia and Triglochin (?) in runways (some) not over 100 ft. from wooded hillside.

Pt. Reyes road, 2 mi. NW Inverness, Marin Co., Calif.
Mar. 27, 1937 1 taken in 50 traps set in wet meadow in seepage ground under sword fern and arrow grass - some small grass between clumps.

Grand Canyon, 2 mi. N Pt. Reyes Station, Marin Co., Calif.
Mar. 28, 1937 3 taken in 45 traps set on SE facing slope under poison oak, Baccharis, Calif. Bay - some grass between brush thickets and trees.

Bivalve, 2 mi. N Pt. Reyes Station, Marin Co., Calif.
Mar. 28, 1937 2 taken in runways (35 traps - but many sprung (and/or) bait gone) in Salicornia about 15 ft. from a chaparral-covered hillside.

Hooper

Microtus californicus

May 25, 1937

1 mi. E San Rafael, salt marsh, Marin Co.

Took 10 from 40 mouse traps set in *Salicornia* along slough bank in runways. Runways here completely "harrowed" the ground but most were old and "flooded out". Of the 10, 7 were caught up on high ground, but still in thick *Salicornia*.

NW Calistoga, Sonoma Co., Calif.

June 23, 1938

Took 3 in 20 traps on dry S-facing slope in dry grass with *P. maniculatus*. This area a limited (about 1 acre) one - evidently had been an old seepage area; now dry.

vicinity of Stewarts Point, Sonoma Co., Calif.

June 24, 1938

2 taken in 47 traps set on SW facing slope 1/4 mi. from ocean in rye grass and among Ceanothus, monkey flower + bracken clumps. 4 taken in grass + sedges in an area once swampy, now dry - 14 traps set.

June 25, 1938 3 mi. W Inverness, 300 ft., Marin Co., Calif.

2 taken from 70 traps set in wet meadow among rye grass, swordfern clumps and sedges. Night cold and quite foggy - everything wet the next morning.

Hooper

Microtus californicus

1½ mi. SW Five Brooks, Inverness Ridge, Marin Co., Calif. June 27, 1938
4 traps set in the heavy Baccharis chaparral for chipmunks netted 1 meadow mouse; no grass about; something had been eating seeds of poison hemlock where this animal taken. 30 traps set in a sedge littered marsh netted 8 Microtus all but 1 of which were young, ie none over 1 yr. old.

marshes at Mouth of Corte Madera Cr., Marin Co., Calif. June 28, 1938.
This is the same area trapped previously this year by Arvey, North and myself. In the same areas—sometimes same identical spots—where we caught numerous meadow mice and Reithrodontomys raviventris Feathers and I took only 1 song sparrow + 2 house mice in 100 traps. High water floated many of my traps. The animals must migrate back and forth with each high and neap season.

Hooper, 1938

Microtus californicus

July 7,

Meadow mice extremely abundant, trails, droppings and animals everywhere, in chaparall belt along ocean south from Sharp Park to Moss Beach. Vegetation: Baccharis, Poison oak, monkey flower, etc. See vegetation type map for San Mateo quadrangle.

N side Halfmoon Bay, ½ mi. N Pillar Pt., San Mateo Co., Calif.

July 8,

29 taken in 16 o traps set in fresh-water marshy area grown to Carex, Juncus, Salix, Rumex, Conium, Mimulus.

Hooper

Aplodontia rufa

3 mi. W Inverness, Marin Co., Calif.

June 25, 1938

Feathers and I located the colony reported by Taylor, Camp, Ferris et al when they were here earlier (1912?). It is on the ocean drainage side of the hill over which the Pt. Reyes highway passes exactly 1 mi. by my speedometer by road from the caretaker's house at the crest of the hill. The ridge on which they are found faces SE and is densely clothed with chaparral, contrasting markedly with the open grassland and semi-open Bishop pine forest higher up on the ridge and less marked with the Ceanothus-studded opposite slope. Vegetation immediately about the dens: blackberry, baccharis, wild rose, thimbleberry, salmon berry, poison oak, sword fern, bracken, poison hemlock and monkey flower. The top of the hill and the opposite slopes are more exposed. The burrows are 6 or 8 in. in diameter with loose dirt before them and open into the hillside generally under a dense sword fern clump. One burrow may open not over 1 ft above a lower one. Feathers took 1 young animal in a #1 jump trap. We took this to camp &

Hooper

Aplodontia rufa

June 25, 1938

kept it for 3 days. It took sword fern fronds and water readily, was rather docile, making no definite passes at the observer. "Appy" finally died; death due, evidently, to peritonitis extending up the leg (where caught) into the body cavity.

1½ mi. (by map) SW Five Brooks, Inverness Ridge, Marin Co.

June 27, 1938

Using criteria as follows we located other colonies here: (1.) Drainage to ocean directly; (2) within fog belt. (3) protected, rather moist slopes heavily covered with plants listed above (4) sword fern. We made 4 steel sets, and (since we had no other larger traps) 2 with gopher traps & 4 with rat traps. This morning, however, we found no animals (other than Peromyscus m.) in our traps. Two traps were sprung, the burrow opening closed in the ~~case~~ with the Peromyscus.

I noted country which seemed to meet the above criteria just south (along hwy. # 1) of Stinson Beach. Probably they could be found there, too.

Hooper, 1938

Aplodontia ;

July 13,

Looked for workings south of S. F Bay from Sharp Park south to Gazos Cr. (±6 mi. S Pescadero). In many canyons we found cover which seemed ideal for these animals, as on Montara Ridge and near Tunitas Cr. On Montara ridge on N facing canyons walls + on canyon bottoms the vegetation is thick and composed of: Baccharis, poison oak, poison hemlock, Ceanothus, thimbleberry, blackberry, sword fern, bracken, monkey flower, and Carex. These dense thickets were in canyons draining directly into the ocean and within the fog belt; they seemed to us to provide almost identical conditions as on ~~Pt. Reyes~~ Inverness Ridge where they do occur.

Plants identified at herbarium:

Everlasting flowers Gnaphalium + Anaphalis

Ceanothus ~~thrisiflorus~~

Swood fern = <u>Polystichum</u> <u>munitum</u> →
"Sedge" = Rush = <u>Juncus</u> <u>effusus</u>
Grass = <u>Holcus</u> <u>lanatus</u>
also here are
Bracken = <u>Pteris</u> <u>aquilina</u>
Sorrell = <u>Rumex</u> <u>acetocella</u>
Poison hemlock = <u>Conium</u> <u>maculatum</u>

Zapus orarius

3 mi. W Inverness, 300 ft., Marin Co.
June 25, 1938

D. Feathers took one in the marsh 1 mi. down the road from the summit of the hill – this on ocean drainage. Vegetation here is as follows, chiefly: clumps characterize it – clumps of sword fern and of some sedge; in the intermediate areas are rye grass and some other low lying grass; along the creek which drains the area are willow, alder and an occasional bay tree.

Elk Valley, Marin Co., Calif.
June 27, 1938

Searched this valley from one end to the other for likely areas for *Zapus* – this in response to skulls of these animals found in owl pellets from here by Cranston Hopkins & Clarence Smith (see Condor, 1938). The valley is heavily grazed by dairy cattle. Only at the two mouths (ocean & bay) might these be found. 27 traps set in high rye + oat grass near (50 ft.) *Salicornia* at the bay mouth near Marzanita netted nothing. The marsh at the ocean end was not examined.